

# Viral Hepatitis NBS User Guide

Viral Hepatitis Program	4
Organizational Chart	4
Monthly Calls	4
Important Terminology: Viral Hepatitis	5
Important Terminology: NBS	6
Internet Explorer Configurations for NBS	7
Entering Viral Hepatitis Investigations into NBS	9
Hepatitis A NBS Investigations	11
Hepatitis B NBS Investigations	12
Notes Regarding HBV Investigations	49
Hepatitis B Positive Pregnant Female NBS Investigations	50
Notes Regarding Hepatitis B Positive Pregnant Female Investigations	60
Perinatal Hepatitis B NBS Investigations	62
Hepatitis C NBS Investigations	63
Notes Regarding HCV Investigations	96
Hepatitis D and Hepatitis E NBS Investigations	98
Appendix A: CDC/CSTE Case Definitions and NBS Case Status Classification	99
2012 CDC/CSTE HCV Case Definitions: Hepatitis B, acute	100
2012 CDC/CSTE HCV Case Definitions: Hepatitis B, chronic	101
HBV Case Status Classification Box and Applications of Case Status for HBV	102
2016 CDC/CSTE Case Definitions: Hepatitis C (acute and chronic)	104
HCV Case Status Classification Box and Applications of Case Status for HCV	105
Hepatitis B Testing and Counseling	106
Hepatitis C Testing and Counseling	108
Appendix B: Standardized Statewide Tools	110
Case Report Form	111
Provider Records Request Letter	116
Provider Records Request Letter for HBV Positive Females of Reproductive Age	117
Letter for Contacts to Acute HBV or Acute HCV Cases	118
Public Health Authority Letter	119
VA Medical Record Request	120
PH-1600 Form	122

Accurint Record Search Request Form	123
Appendix C: Adding Providers/Organizations and NBS and Lab Translator	124
Data Entry: Adding Providers	125
Data Entry: Adding Organizations	128
Data Entry: Lab Translator for Entering a Laboratory Report	132
Appendix D: Viral Hepatitis Case Notifications Process	135
Appendix E: PH-1600 Reporting in REDCap Procedure	143

#### <u>References</u>

CDC: The ABCs of Hepatitis

http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/ABCTable.pdf

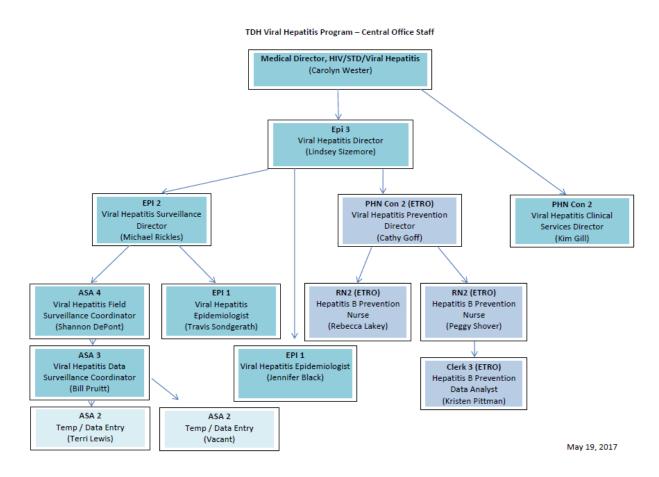
CDC: Interpretation of Hepatitis B Serologic Test Results <a href="http://www.cdc.gov/hepatitis/hbv/pdfs/serologicchartv8.pdf">http://www.cdc.gov/hepatitis/hbv/pdfs/serologicchartv8.pdf</a>

Hepatitis B Foundation: Additional Blood Tests

http://www.hepb.org/patients/additional\_blood\_tests.htm

# **Viral Hepatitis Program**

## **Organizational Chart**



# **Monthly Calls**

The Viral Hepatitis Monthly Calls occur the 4<sup>th</sup> Thursday of every month from 8:00-9:00CST/9:00-10:00EST.

The Viral Hepatitis Case Navigator Calls immediately follow.

## **Important Terminology: Viral Hepatitis**

**Hepatitis B Virus (HBV):** A double-stranded deoxyribonucleic acid (DNA) virus in the family Hepadnaviridae and genus *Orthohepadnavirus*. It is most commonly transmitted by sexual contact but can also be transmitted by contact with other body fluids. It is vaccine preventable.

**Hepatitis C Virus (HCV):** An enveloped, single-stranded ribonucleic acid (RNA) virus in the family Flaviviridae and genus *Hepacivirus*. It is a blood-borne pathogen and is not vaccine preventable.

**Vertical Transmission (Perinatal Transmission):** A pathogen transmitted from mother to baby in pregnancy or during childbirth.

**Immunoglobulin M (IgM):** The first antibody (Ab) particle produced by the immune system in response to an antigen (infection). Presence of IgM antibodies can signify a recently acquired infection.

**Immunoglobulin G (IgG):** An antibody (Ab) particle produced by the immune system in response to an antigen (infection). Presence of IgG antibodies can signify a past or present infection.

**IgM antibody to hepatitis B core antigen (IgM anti-HBc):** Positivity indicates recent infection with hepatitis B virus (≤6 months).

**Hepatitis B Surface antigen (HBsAg)**: A protein on the surface of hepatitis B virus; it can be detected in high levels in serum during acute or chronic hepatitis B virus infection. The presence of HBsAg indicates that the person is infectious.

**Hepatitis B e-antigen (HBeAg):** A protein that is secreted by hepatitis B infected cells. It is associated with chronic hepatitis B infection and is used as a marker of active viral disease and a patient's degree of infectiousness.

**Hepatitis B Surface antibody (anti-HBs):** The presence of anti-HBs is generally interpreted as indicating recovery and immunity from hepatitis B virus infection, either naturally or through vaccination.

**Total Hepatitis B core antibody (anti-HBc):** The total anti-HBc appears at the onset of symptoms in acute hepatitis B and persists for life. It indicates previous or ongoing infection with hepatitis B virus in an undefined time frame.

**Hepatitis B e antibody (anti-HBe):** An antibody made in response to the B e-antigen and is detected in patients who have recovered from hepatitis B infection as well as those who are chronically infected. **Hepatitis C antibody (anti-HCV):** The presence of antibodies to hepatitis C virus in the blood. It indicates previous or ongoing infection with hepatitis C virus.

**Nucleic Acid Test (NAT)/Nucleic Acid Amplification Test (NAAT):** A molecular technique that tests for the presence of a virus or bacterium by testing for the presence of viral DNA (for HBV)/viral RNA (for HCV). NAT testing can be quantitative or qualitative and includes polymerase chain reaction (PCR) and genotype tests. For example, in an NBS Hepatitis C investigation, if you receive a positive result for an RNA, PCR, or genotype test, you will mark 'positive' for HCV RNA result.

**Window Period:** The period of time after a person is infected with a communicable disease but before antibodies to the infection is detectable on testing. During the window period, a patient's antibody test will be negative despite the fact that the patient is infected.

**Acute Viral Hepatitis:** The early stage of viral infection of the liver caused by one of three different hepatitis viruses (A, B, or C). Signs and symptoms of early (or acute) viral hepatitis include yellowing of the skin or eyes (jaundice), abdominal pain, vomiting, nausea, diarrhea, malaise, grey-colored stools, or dark urine. For Hepatitis B and C, acute infection can lead to chronic infection.

**Chronic Viral Hepatitis:** A long-term illness that occurs when Hepatitis B or Hepatitis C remains in a person's body. Chronic hepatitis can last a lifetime and lead to serious liver problems, including cirrhosis (scarring of the liver) or liver cancer.

**Sustained Virologic Response (SVR)**: With successful HCV treatment, the virus will become undetectable in the blood. Patients are considered cured of HCV when the virus remains undetectable in their blood for 12 weeks after the completion of their treatment, which is also known as a sustained virologic response.

## **Important Terminology: NBS**

**National Electronic Disease Surveillance System (NEDSS) Based System (NBS):** a database that facilitates electronically transferring public health surveillance data to and from public health departments and CDC.

**Event**: A laboratory report (either paper or electronic) within NBS.

**Condition**: The disease (hepatitis C, acute; hepatitis C, chronic; hepatitis B, acute; hepatitis B, pregnancy).

**Case Status**: The classification of the condition utilizing the CDC/CSTE hepatitis case definitions (confirmed, probable, not a case). Case status may evolve as new labs are received and should be updated, regardless of when the investigation was opened.

- Example: an existing HCV chronic, probable investigation from 2010 receives a positive RNA lab in 2016.
  - Associate the recently received lab with the existing investigation.
  - Update case status from 'probable' to 'confirmed'

NBS Investigation: Created within NBS to house information related to a condition.

**Investigation Start Date:** The date the investigation was opened. The investigation start date will always remain static.

- For example: you receive a positive HBsAg on a patient and you notice they have an existing positive HBsAg lab in NBS from 9/30/2011 and no investigation was created.
  - Open an investigation and investigation start date will auto-populate to today's date.
  - Associate both the new and old labs to this investigation.
  - The investigation start date, MMWR week, and MMWR year should not be modified to reflect the earlier lab.
  - If an investigation had been created previously, you would associate the new lab to the
    existing investigation and <u>not</u> modify the existing investigation start date, MMWR week,
    or MMWR year to reflect today's date.

Association: The process of linking all relevant events to investigations within NBS.

**Field Investigation:** An investigation conducted by regional staff to determine if a viral hepatitis infection is acute and/or if a woman of reproductive age is pregnant. This includes requesting records from a provider and/or interviewing the patient to fill out the case report form. Information obtained from a field investigation must be entered into the NBS investigation.

**Reportable**: The conditions that are required to be reported to the state health department.

Notifiable: The conditions that require CDC notification.

Woman of Reproductive Age: Any woman aged 11-50.

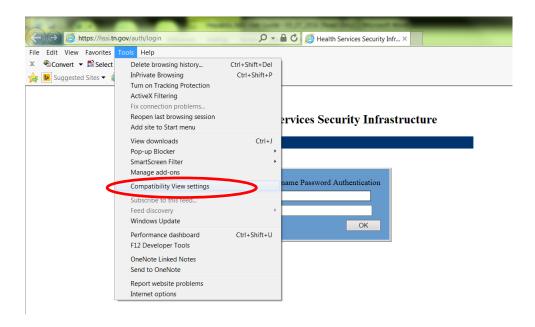
**Orphan Laboratory Report**: A laboratory report received via Electronic Laboratory Reporting (ELR) that is not associated with an investigation in NBS.

**Lab Object**: A laboratory report (either paper or electronic) entered within NBS. If verbal laboratory results are given, please make every effort (via lab or provider) to obtain a paper copy of these results and enter them into NBS (so they will count as a lab object). Case status should only be determined from lab objects and not from verbal results.

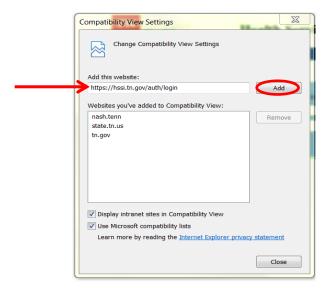
## **Internet Explorer Configurations for NBS**

You will need to modify your Internet Explorer (IE) browser settings to work properly with NBS. Do NOT use any other browser other than IE when using NBS.

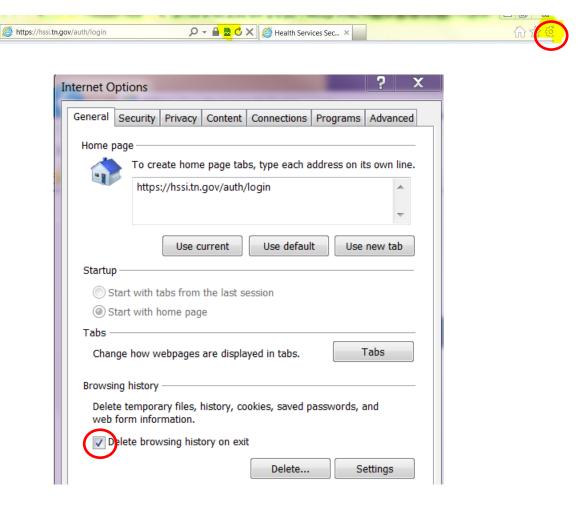
- Link to NBS: <a href="https://hssi.tn.gov/auth/login">https://hssi.tn.gov/auth/login</a>
- Internet Explorer Settings Required for NBS:
  - o Click on Tools, Compatibility View settings



Add web address: https://hssi.tn.gov/auth/login



o Click on the Gear, Go to Internet Options, and check Delete Browsing History on Exit



 If you have tried the incorrect password too many times, and the account has been locked, either wait 45 minutes for the account to unlock automatically or email CEDS.Informatics@tn.gov for assistance.

Please include your DC# and use 'NBS Password Reset' for the Subject of the email. The Surveillance Systems and Informatics Program will contact the Help Desk and the NBS System Administrator to process the request.

#### **Entering Viral Hepatitis Investigations into NBS**

This document contains examples of best practices related to management of acute and chronic viral hepatitis (VH) events and investigations In Tennessee, acute HBV, acute HCV, and chronic HCV are reportable; acute HBV and acute HCV are laboratory and provider reportable while chronic HCV is only laboratory reportable.

Tennessee Provider Reportable Diseases, 2017:

https://apps.health.tn.gov/ReportableDiseases/Common/2017 List For Healthcare Providers.pdf

Tennessee Laboratory Reportable Diseases, 2017:

https://apps.health.tn.gov/ReportableDiseases/Common/2017\_List\_For\_Laboratories.pdf

All laboratories should be reporting to the Tennessee Department of Health; however, if a region finds a provider where laboratory reports are not being received consistently, please let Central Office VH staff know. Although laboratories are required to report positive viral hepatitis markers, they have no way to distinguish acute versus chronic infection. Additionally, laboratories are required to report negative hepatitis markers if one or more markers are positive (e.g. if the hepatitis B surface antigen result is positive, labs should report all tests performed for hepatitis A, hepatitis B, and hepatitis C). When lab reports are received, an NBS investigation should be created and any related lab reports (paper or ELR) should be associated with the investigation. This applies to positive and negative labs.

Example: An acute HBV case is reported with a positive HBsAg, a negative anti-HCV, and a negative HAV IgM. All three should be entered and associated with the acute HBV investigation. In this scenario, there should be no additional investigations created in NBS for HAV or HCV.

Although chronic HBV and HCV cases are not provider reportable in Tennessee, NBS serves as a registry for chronic hepatitis cases. All chronic HBV cases will be handled through the region that corresponds to the patient address information listed on the laboratory report. All chronic HCV cases will be handled through the central office and field staff will only be notified if a case is suspected to be acute. The region will be notified by a direct email from central office staff on a case by case basis.

All clinician reported cases of acute hepatitis must have a field investigation and an NBS investigation to determine if the case is acute hepatitis, chronic HCV hepatitis, or not a case. The Centers for Disease Control and Prevention (CDC)/Council of State and Territorial Epidemiologists (CSTE) HBV and HCV case definitions, HBV and HCV case classification boxes, and specific applications of case status can be found in Appendix A. Case status should only be determined from laboratory reports (lab objects) that have been entered (either manually or by ELR) into NBS and associated with an investigation.

Additionally, it is critically important to make every attempt to interview acute HBV and HCV cases diagnosed in jail or prison. It is best practice to call the medical staff at the facility to discuss the case with the nurse in charge and to set up a time to go and interview the patient.

The case report form, a letter requesting records from a provider, a letter requesting records from a provider pertaining only to HBV positive females of reproductive age (11-50), a letter of public health

authority, a PH-1600 form, a letter for contacts to an acute HBV or HCV case, and the Accurint Record Search Request Form can be found in Appendix B. In an effort to develop and sustain streamlined statewide tools, <u>only</u> use these resources and contact central office surveillance staff should a problem arise. Additionally, these documents are available in Word on SharePoint at: <a href="https://tennessee.sharepoint.com/sites/health/CEDEP/HSVH/Documents/Forms/Default.aspx?id=%2Fsites%2Fhealth%2FCEDEP%2FHSVH%2FDocuments%2FViral%20Hepatitis%2FVH%20Surveillance">https://tennessee.sharepoint.com/sites/health/CEDEP/HSVH/Documents/Forms/Default.aspx?id=%2Fsites%2Fhealth%2FCEDEP%2FHSVH%2FDocuments%2FViral%20Hepatitis%2FVH%20Surveillance</a>

To request a new NBS user, please go to the survey at this address: <a href="https://is.gd/NBSUserRequest">https://is.gd/NBSUserRequest</a>

- a) Complete the form to request the user access level and program areas.
- b) Please ensure the two IT forms (20170111\_ComputerAccessSecurityForm.pdf, 20170111\_AcceptableUseForm.pdf) are attached. They may be downloaded, completed, and uploaded in the survey. The account cannot be set up without these two forms attached.
  - a. Choose 'General Communicable Disease' option for domains.
- c) The new user will receive an email with the account instructions and the NBS user guide.

For instructions on adding a provider, instructions on adding an organization (laboratory or medical facility), and the lab translator sheet for to assist with adding a laboratory report, refer to Appendix C. For detailed guidance on the Case Notifications process, refer to Appendix D.

For an overview of how HBV and HCV PH-1600's received via REDCap will be handled, please refer to Appendix E.

## **Hepatitis A NBS Investigations**

All persons who are immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive should be entered into NBS. Due to the outbreak potential of hepatitis A (HAV), these reports should receive immediate follow-up. False positive IgM results are common and should be classified as 'not a case' in NBS.

For IgM anti-HAV positive persons with symptoms of an acute illness with discrete onset (e.g. fever, headache, malaise, anorexia, nausea, vomiting, diarrhea and abdominal pain with either jaundice or elevated liver enzymes), infection control measures should be implemented and the CEDEP Immunizations Program should be contacted immediately. To interrupt continued transmission, potential sources of infection and potentially exposed persons must be promptly identified and post-exposure prophylaxis must be given within 2 weeks of exposure.

For questions pertaining to HAV events or investigations, please contact either Robb Garman: Robb.Garman@tn.gov or Cassie Jones: Cassandra.Jones@tn.gov

## **Hepatitis B NBS Investigations**

Acute HBV and perinatal HBV infections are reportable to the Health Department (HD).

In order to properly categorize cases of Hepatitis B infection, the public health regions should take the following steps upon receipt of all HBV lab reports, as well as clinical reports of suspected acute HBV:

#### 1) Lab Management of HBV Lab Reports in NBS (performed by the Public Health Regions)

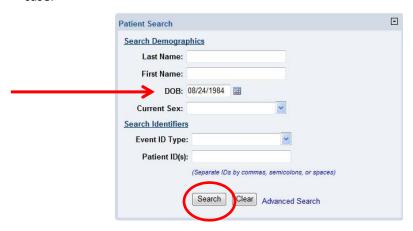
- Electronic Laboratory Reports (ELR):
  - All HBV laboratory reports (except for isolated positive anti-HBs) are to be associated with a client/investigation and have a case status determined.
- Manual/Paper Laboratory Reports:
  - All pertinent paper laboratory reports (positive and negative) that support a case status determination need to be entered into NBS as a laboratory report and associated with the investigation.
  - For best practices, laboratory reports/results given over the phone should be supported by a paper laboratory report. If verbal laboratory results are given, please make every effort (via lab or provider) to obtain a paper copy of these results.

#### 2) Field Investigations of HBV (performed by the Public Health Regions)

- All suspected acute HBV cases (based on clinician reporting or other risk factor or lab data received),
   and/or
- All women of reproductive age (11-50 years) to rule out pregnancy (even if known to have chronic infection)
  - Standardized Tools Aiding in Field Investigations of Suspected Acute (Appendix B):
     Provider Requesting Records letter, HBV/HCV Case Report Form, a letter for contacts to an acute HBV case or acute HCV case, Accurint Record Search Request Form, and Public Health Authority letter (if necessary)
  - Standardized Tools Aiding in Field Investigations of Women of Reproductive Age (Appendix B):): Provider Requesting Records letter (if no existing HBV investigation), Provider Requesting Records Verifying Pregnancy Status letter (if existing HBV investigation), HBV/HCV Case Report Form, Accurint Record Search Request, and Public Health Authority letter, if necessary

**Note:** Detailed instructions for HBV lab management, creating an NBS investigation, determining case status, and conducting field investigations are described below.

- 1. To avoid creating duplicate patient records in NBS, search for the patient by looking up their Date of Birth (DOB), followed by the first common letters of the name (to account for multiple spellings of names, ex: Steven or Stephen you would search for 'Ste'):
  - a. When searching, names entered with all capital letters appear first, followed by those entered with both capital and lower case letters, followed by those entirely in lower case.

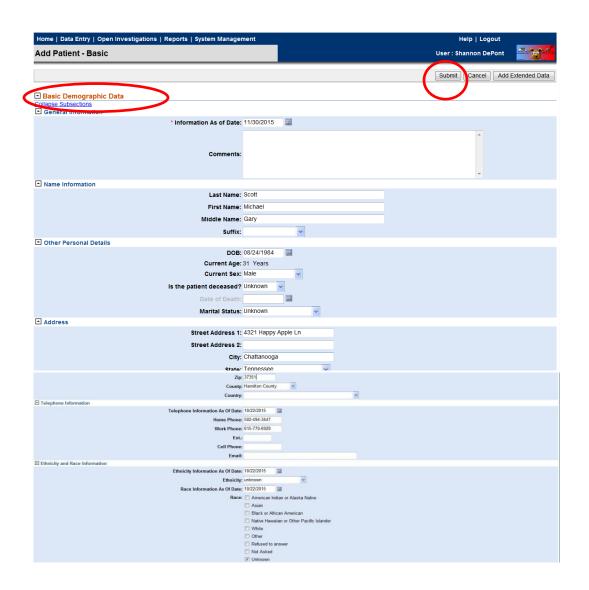


- i. If the patient has more than one NBS profile and needs to be merged, please send an email to Shannon.Depont@tn.gov with 'Merge Patient' in the Subject line and, in the email, include your DC# and the PSN/Patient ID. Shannon will determine if the patient meets the merging criteria.
  - 1. If there is an error in the name for one of the patient records, please correct the name before requesting the merge.
  - Do not send any additional information about the patients, such as patient name or date of birth. If this information is required, please contact Shannon De Pont via telephone at 615-532-8518.
  - 3. When the NBS System Administrator merges the patient records, only one of the PSN numbers will be preserved and available when searching. Make note of all of the PSN numbers for the next step.
  - 4. After the patient records are merged, you will need to make sure there are not duplicate lab reports or investigations. All of the lab reports and investigations for the merged patients will now be listed in a single patient record. Follow the steps for managing duplicate lab reports or investigations, and ensure the appropriate associations are made.
- 2. Before creating an investigation for an Electronic Laboratory Report (ELR), check NBS for the patient as you would when manually entering a paper laboratory report.

- 3. If the patient is not in NBS, add them and their laboratory report(s) into NBS:
  - a. Click 'add a new patient':



- i. Fill out any information appearing on the laboratory report.
- ii. Unless otherwise specified on the lab, mark the subsequent fields as follows:
  - 1. Information As of Date: Auto populates
  - 2. Comment: Skip/leave blank unless needed
  - 3. Is the patient deceased?: Unknown
  - 4. Marital Status: Unknown
  - 5. Full Address
    - a. County: Does not auto populate, please research via the following resources:
      - https://tools.usps.com/go/ZipLookupAction input
    - b. Census Tract: Skip/leave blank
  - 6. Phone/email: (if known)
  - 7. Ethnicity: Unknown
  - 8. Race: Unknown
- iii. Do not enter information for type, assigning authority, or ID Value
- iv. Click Submit.



#### If the patient is in NBS, click on their Patient ID:



4. To add a lab, click on the events tab, then Add New next to Lab Reports:

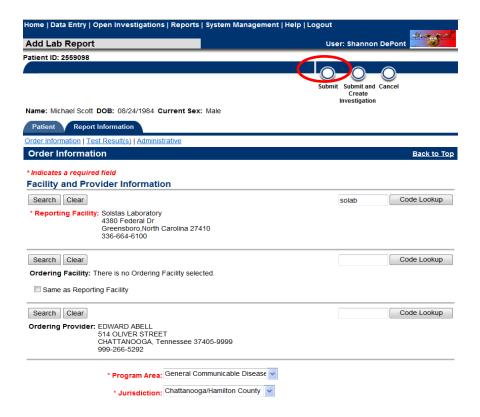


- a. When entering a lab (in a new jurisdiction) for an existing investigation (in a different jurisdiction), refer to step 26 on page 42 for guidance on transferring jurisdiction.
  - i. Mark the laboratory fields as indicated below:
    - 1. Reporting Facility (if facility is not found, refer to appendix C for instruction on adding an organization)
    - 2. Ordering Facility: Only if listed on lab (if facility is not found, refer to appendix C for instruction on adding an organization)
    - 3. Ordering Provider (if provider is not found, refer to appendix C for instruction on adding a provider)
    - 4. Program Area: General Communicable Disease
    - 5. Jurisdiction (auto populates based on county you entered in the previous step)
    - 6. Lab Report Date: Use the lab's resulted/verified/completed/report date
    - 7. Date Received by Public Health: Date you received the lab
    - 8. Ordered Test
      - a. Refer to NBS Lab Translator sheet (Appendix C), fill in corresponding result, and click Select.
    - 9. Accession Number: If given
    - 10. Specimen Source: Serum, unless otherwise specified
    - 11. Specimen Site: Skip (leave blank)
    - 12. Date Specimen Collected: Collection Date
    - 13. Patient Status at Specimen Collection: Unknown, unless otherwise specified
    - 14. Pregnant:
      - a. Unknown: If patient is female and has unknown pregnancy status

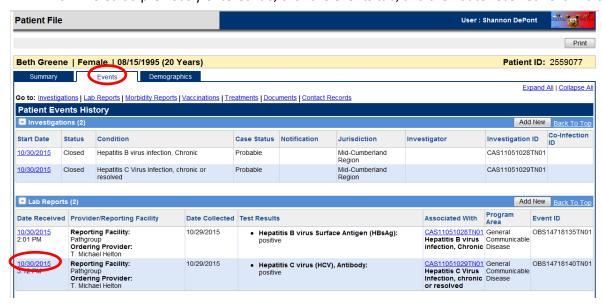
- b. Pregnant: If patient is female and status is known to be pregnant
- c. Skip: If patient is male

#### 15. Resulted test:

- a. Refer to NBS Lab Translator sheet (Appendix C)
- b. Fill in corresponding result
- c. Click Add Test Result
- 16. Click Submit

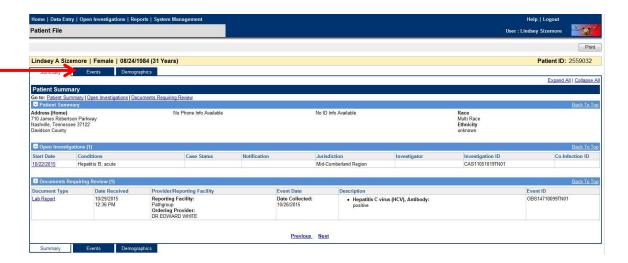


b. To edit a previously entered lab, click the events tab, and then date received. Click Edit





- If you receive both qualitative and quantitative results, please enter both
  results. However, if you receive both a numerical result and a log result for the
  same lab on the same date, please enter only the numerical result.
- ii. Click Submit
- 5. Prior to conducting your field investigation for newly reported HBV cases that are suspected of having acute HBV (clinician report, risk factors, associated labs), check to see if they have an existing HBV investigation by clicking on events:



- a. For those with an existing chronic HBV investigation:
  - i. Associate the lab with the chronic investigation even if the investigation has been closed and <u>case status should be updated</u>, if necessary. A second investigation should not be created unless:
    - 1. The patient is pregnant (refer to Hepatitis B Positive Pregnant Female section).
      - With pregnancy, the patient will have an acute and/or chronic investigation in addition to a pregnancy investigation for <u>each</u> pregnancy.
- b. For those with an existing acute HBV investigation:
  - i. If additional labs are received related to the acute hepatitis B condition, they should be associated with the existing hepatitis B acute investigation, even if the investigation has been closed, and <u>case status should be updated</u>, if necessary. A second investigation should not be created unless:
    - A positive/reactive lab report is received for another viral hepatitis infection (HCV, HAV)
      - a. Create an investigation for the additional viral hepatitis infection, acute or chronic, as appropriate.
    - 2. A positive lab report is received with collection date greater than <u>six</u> <u>months</u> from the date of collection of the first specimen (in the existing HBV acute investigation)
      - a. Create an investigation for a chronic HBV investigation.
    - 3. The patient is pregnant (refer to Hepatitis B Positive Pregnant Female section).
      - With pregnancy, the patient will have an acute and/or chronic investigation in addition to a pregnancy investigation for each pregnancy.
- c. For those with existing acute <u>and</u> chronic HBV investigations:
  - i. Associate the lab with the chronic investigation even if the investigation has been closed and <u>case status should be updated</u>, if necessary. A second investigation should not be created unless:
    - 1. The patient is pregnant (refer to Hepatitis B Positive Pregnant Female section).
      - With pregnancy, the patient will have an acute and/or chronic investigation in addition to a pregnancy investigation for each pregnancy.

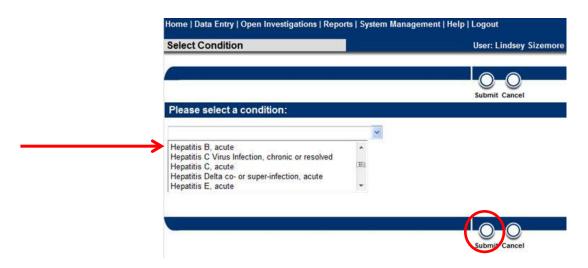
- d. For those with multiple existing acute or multiple existing chronic HBV investigations:
  - i. Refer to the earliest investigation and update the case status (if necessary), associate all HBV labs with this investigation, and change the case status for the repetitive HBV chronic investigations to 'not a case.'
    - Example: if you have a chronic HBV investigation with an investigation start date of 6/17/2006 and another with an investigation start date of 9/30/2011, you will update the case status for the 6/17/2006 investigation (if necessary), associate all HBV labs to the 6/17/2006 investigation, and change the case status for the 9/30/2011 investigation to 'not a case.' This will ensure our case counts to CDC are correct.
      - a. Going forward, there should not be multiple chronic investigations created. In the past, this was the practice in some regions to account for pregnancy; however, we now have the Hepatitis B Positive Pregnant Female condition (refer to Hepatitis B Positive Pregnant Female section).
- 6. To create a **HBV** investigation, click Add New:



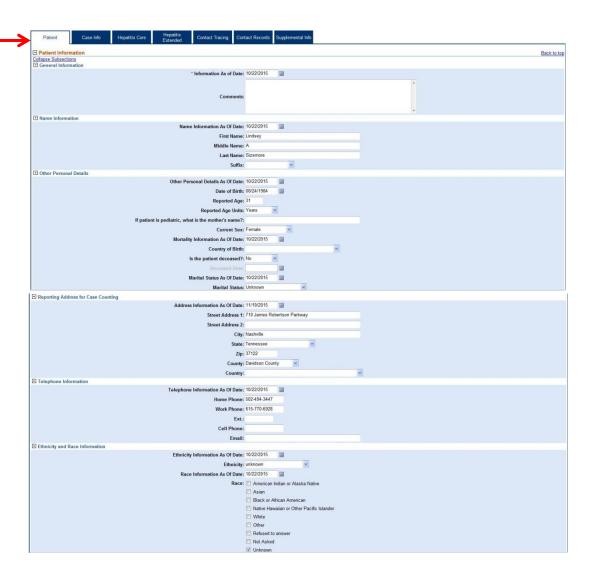
- a. <u>For condition, select acute, HBV if you are preparing to do a field investigation.</u>

  <u>Otherwise, select chronic, hepatitis B</u> and click SUBMIT.
  - i. In the prior NBS Hepatitis pages, you could only select "Hepatitis" as the condition and you would modify the diagnosis within the investigation to reflect "hepatitis B, acute" or "hepatitis B, chronic" prior to closing the investigation.
  - ii. "Hepatitis" is still an option for condition; however, we request that you choose the specific condition (hepatitis B, acute or hepatitis B, chronic) from the beginning.

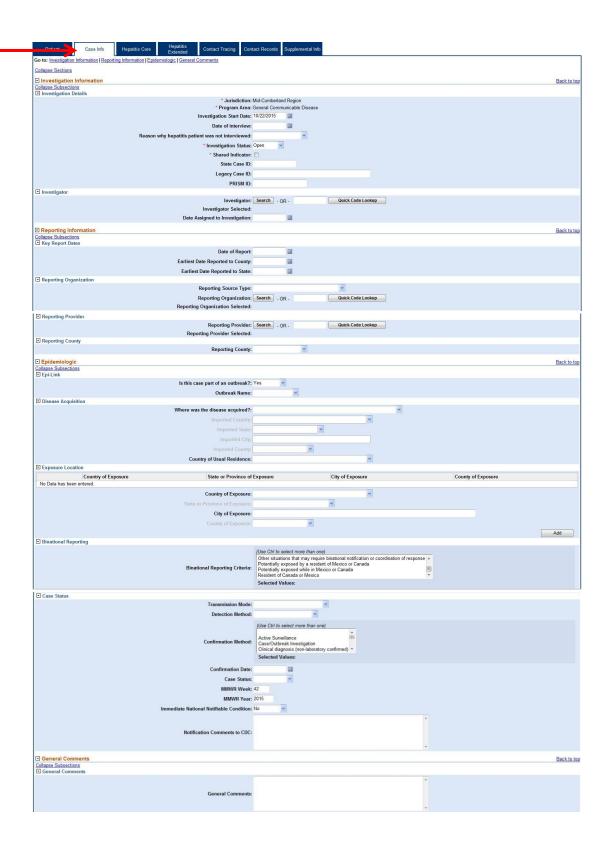
iii. The condition you choose from the beginning makes a difference in which extended tabs you will have access to.



- iv. If the condition selected is acute, you are planning to conduct a field investigation, which includes sending out the provider requesting records letter (Appendix B).
- v. Once the provider requesting records letter is received back, you can use this information to fill out the case report form (Appendix B). This will be used to populate the NBS tabs discussed below.
- 7. Under the Patient tab, data is pre-populated based on the information within the patient's NBS record (assuming the information was present in patient's record):
  - a. If you are aware that any of the patient's information has changed, update it within the investigation. This will update the information within the NBS record to reflect the most current information. More importantly, it will keep both the past and present information in the record for historical context.
    - You should only update this information within the investigation under the Patient tab (see below). DO NOT update this information in the Demographics tab on the Patient home screen as this will impact the historical data within NBS.

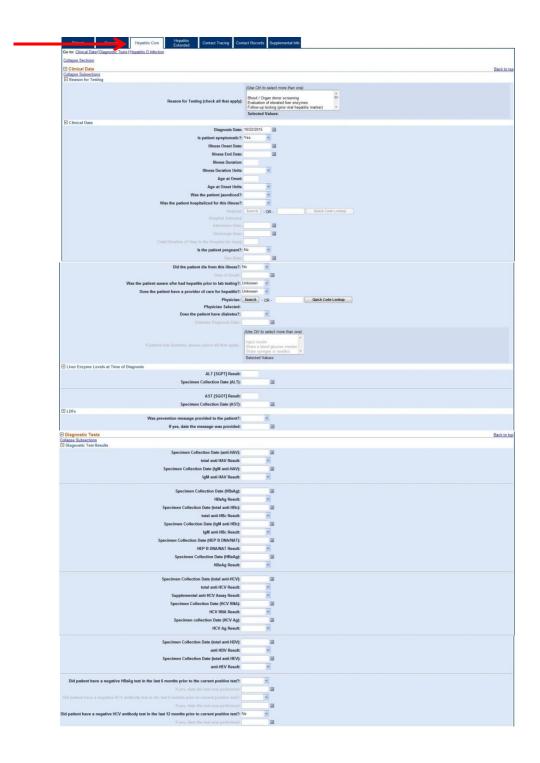


- 8. Under the Case Info tab, the Jurisdiction, Program Area, Investigation Start Date, Investigation Status, MMWR Week, MMWR Year, and Immediate National Notifiable Condition are prepopulated based on the information within the patient's NBS record (assuming the information was present in patient's record) and are based on the date you open the investigation:
  - a. You will fill out the following information for surveillance purposes:
    - i. Date of Interview (if patient was interviewed)
    - ii. Reason why patient was not interviewed (if patient was not interviewed)
    - iii. Investigator (Search for yourself or enter your quick code)
    - iv. Date Assigned to Investigation use the date you were assigned the investigation
    - v. Date of Report use the lab's resulted/verified/completed/report date (same date as the resulted date when the lab is entered)
    - vi. Reporting Source Type (the type of facility that reported the case), if known. If not known, leave blank.
    - vii. Reporting Organization (if organization is not found, refer to appendix C for instruction on adding an organization)
    - viii. Reporting Provider (the provider who reported the case), if known. If not known, leave blank. (If provider is not found, refer to appendix C for instruction on adding a provider)
    - ix. Is this case part of an outbreak?
      - 1. If yes, select the outbreak name (central office will assign an outbreak name if this occurs)
    - x. Where was this disease acquired, if known? If not known, leave blank.
    - xi. Country of Usual Residence (if outside of the United States)
    - xii. Country of Exposure (if outside of the United States)
    - xiii. Detection Method
    - xiv. Case Status 'suspect' can be selected initially while waiting to receive the provider requesting records letter back; however, it must be changed to reflect the appropriate case status (Appendix A) prior to closing the investigation.
    - xv. General Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.
      - For example, if a patient indicates they share body jewelry, you would indicate that here as it isn't captured elsewhere in the NBS investigation.



- 9. The Hepatitis Core tab appears within the investigation for all hepatitides.
  - a. Central Office will interpret those items with unknown selected to mean the patient was lost to follow-up or refused to answer.
  - b. Central Office will interpret those items with nothing selected (blank) to mean the case is still being worked up and the field investigation is not complete.
  - c. You will fill out the following information for surveillance purposes:
    - i. Reason for Testing (check all that apply)
    - ii. Diagnosis Date use the lab's resulted/verified/completed/report date (same as the resulted date when the lab is entered)
    - iii. Is patient symptomatic? If yes, and if known:
      - 1. Illness Onset Date
    - iv. Was the patient jaundiced?
    - v. Was the patient hospitalized for this illness? If yes, and if known:
      - 1. Hospital's information
      - 2. Admission Date
      - 3. Discharge Date
    - vi. Is the patient pregnant? If yes,
      - 1. Due Date
      - A second, separate pregnancy investigation must be opened in NBS to denote the pregnancy (refer to Hepatitis B Positive Pregnant Female Section). The patient will have their original Hepatitis investigation(s) and their pregnancy investigation(s).
    - vii. Did the patient die from this illness? If yes, and if known:
      - 1. Date of Death
        - You must be certain the patient died from the hepatitis indicated as the investigation condition and not from another primary cause.
    - viii. Was the patient aware s/he had hepatitis prior to lab testing?
    - ix. Does the patient have a provider of care for hepatitis? If yes, and if known:
      - 1. Physician's information
    - x. Does the patient have diabetes? If yes, and if known:
      - 1. Diabetes diagnosis date
        - a. If you only know the year, please denote the appropriate year and use 01/01 for the month and day, respectively.
      - 2. If patient has diabetes, select all that apply
    - xi. Fill in any lab results that pertain to the labs you have entered (or were imported via ELR) that will be associated with this investigation.
      - 1. While all positive paper laboratory reports need to be entered and associated, the only HBV antibody labs available in the Hepatitis Core tab are total anti-HBc and IgM anti-HBc.

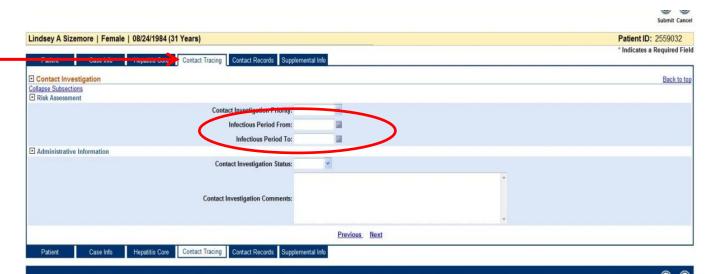
2. For numeral xi section only, if there is information you do not know, you can leave the fields blank. You do not need to select Unknown, except for IgM anti-HBc result.



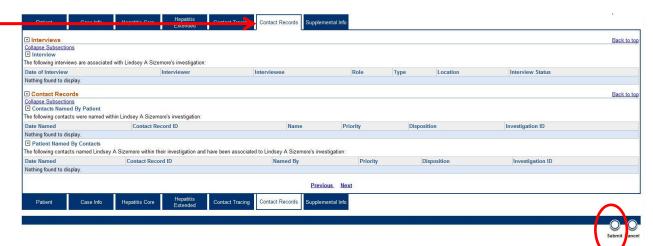
- 10. The Hepatitis Extended tab appears within the investigation and differs depending on what Hepatitis condition was selected when opening the investigation. All known fields in this tab must be filled out after conducting the "hepatitis B, acute" field investigation. If you determine after the field investigation that, based on the information you acquired, the patient meets the case definition for "hepatitis B, chronic" as opposed to "hepatitis B, acute", refer to step 29 on page 46 for how to change the condition to "hepatitis B, chronic".
  - a. Contact with a Case asks if the patient was aware that they were a contact to a known case of HBV. If you select yes, NBS asks for the type of contact the patient had with that individual (sexual, needle, household, or other). If other is selected, please specify the type of contact in the text box.
    - i. In the Hepatitis Extended tab, some fields will not populate unless yes is selected. For example, if you select Yes for "Did the patient receive a tattoo?" another set of questions will appear asking where the tattooing was performed (check all that apply).

Patient Care Info Hepatitic Care Extended Contact Tracing Conta	act Records Supplemental info	4
Go to: Contact with Case   Sexual and Drug Exposures   Exposures Prior to Onset   Hepatitis Treatment   Vac	ccination History	
Collapse Sections		
□ Contact With Case		Back to top
Collapse Subsections  Contact with a Case		
	6 months prior to onset of symptoms. For Hepatitis C, the time period is 2 weeks - 6 months prior to onset of symptoms.	
During the time period prior to onset, was patient a contact of a case?:		
Sexual And Drug Exposures		Back to top
Collapse Subsections		Dack to top
Sexual Exposures in Prior 6 Months		
What is the sexual preference of the patient?:		
Note: If 0 is selected on the form, enter 0; if 1 is selected on the form, enter 1; if 2-5 is selected on the form, In the 6 months before symptom onset, how many:	, enter 2; if >5 is selected on the form, enter 6.	
Male Sex Partners Did the Patient Have:		
Female Sex Partners Did the Patient Have:		
Was the patient treated for a sexually transmitted disease?:	<u>▼</u>	
■ Needle Sharing Exposures in Prior 6 Months		
Number of needle sharing partners:		
■ Exposures Prior To Onset		Back to top
Collapse Subsections		DOCK TO TOP
Blood Exposures Prior to Onset	6 months prior to onset of of symptoms. For Hepatitis C, the time period is 2 weeks - 6 months prior to onset of symptoms.	
During the time period or interest differs for Acute Repatitis B and C. For Repatitis B, the time period is 6 weeks - c	5 months prior to onset or or symptoms. For Hepatitis C, the time period is 2 weeks - 6 months prior to onset or symptoms.	
Undergo Hemodialysis:	<b>▼</b>	
Have an Accidental Stick or Puncture With a Needle or Other Object Contaminated With Blood:	<u>▼</u>	
Receive Blood or Blood Products (Transfusion):	▼	
Receive Any IV Infusions and/or Injections in the Outpatient Setting:	<u>×</u>	
Have Other Exposure to Someone Else's Blood:	<u>~</u>	
Was the patient employed in a medical or dental field involving contact with human blood?:	×	
Was the patient employed as a public safety worker having direct contact with human blood?:	▼ ·	
■ Tattooing/Drugs/Piercing		
In the time period prior to onset:		
Did the patient receive a tattoo?:	<u>·</u>	
Inject Drugs Not Prescribed By a Doctor:	×	
Use Street Drugs But Not Inject:	×	
Did the patient have any part of their body pierced (other than ear)?:	×	
Other Healthcare Exposure		
Did the patient have dental work or oral surgery?:	<u> </u>	
Did the patient have surgery (other than oral surgery)?:	<u> </u>	
Was the patient hospitalized?:		
Was the patient a resident of a long-term care facility?:	<u> </u>	
Was the patient incarcerated for longer than 24 hours?:		
□ Incarceration More than 6 Months		
Was the patient ever incarcerated for longer than 6 months?:	⊌	
Hepatitis Treatment		Back to top
Collapse Subsections  Treatment Information		
■ Vaccination History		Back to top
Collapse Subsections		Dack to top
■ Hepatitis B Vaccination		
Did the patient ever receive hepatitis B vaccine?:	~	

- 11. Under the Contact Tracing tab, you are trying to determine who the patient could have exposed to HBV and contact tracing should be conducted on all acute HBV cases. You will fill out the following information for surveillance purposes:
  - a. Infectious Period From 6 weeks prior to the onset date
  - b. Infectious Period To 60 days after the onset date
    - i. Onset symptoms or, in absence of symptoms, the first positive lab
    - ii. http://www.timeanddate.com/date/dateadd.html
  - c. Contact Investigation Status (mark as open until all contacts have been interviewed) and then close.
  - d. Contact Investigation Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.



12. Under the Contact Records tab, you must submit the investigation before you can add a contact.



- 13. Once you submit, select the contact records tab again. You will fill out the following information for surveillance purposes:
  - a. Contacts Named by Patient: These are persons that the case you are investigating has named as contacts during their infectious period.
    - i. Add all named contacts.
  - b. Patients Named by Contacts: These are persons that named the case you are investigating as a possible contact.
    - i. Prepopulates from the record(s) of these contacts. If you are adding a new investigation, this field will be blank. You do not need to do

Remember: Always protect the confidentiality of the index patient's identity when interviewing contacts.



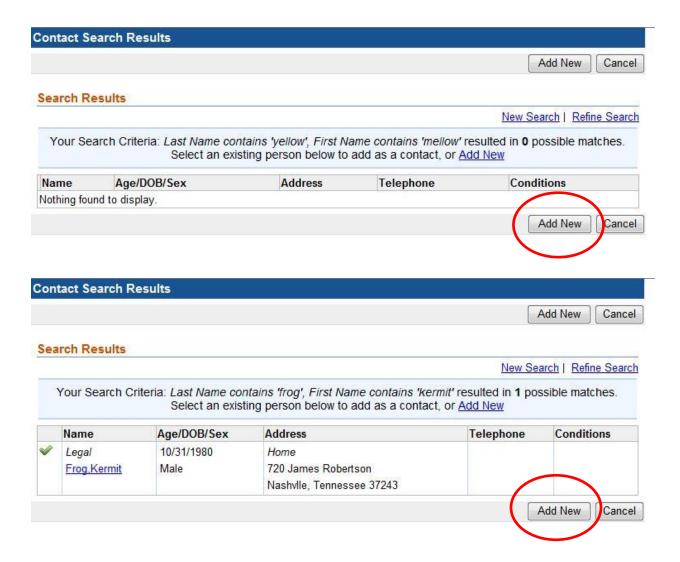
14. To add a new contact record, select Add New Contact Record:



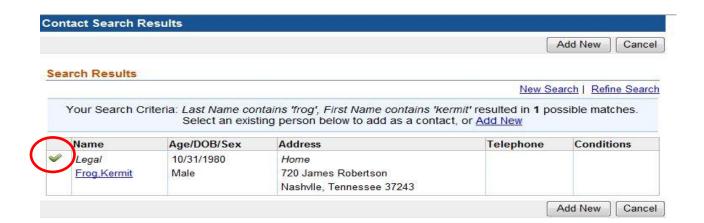
- 15. To avoid creating duplicate patient records in NBS, search for the patient by looking up their Date of Birth (DOB), followed by the first common letters of the name (to account for multiple spellings of names, ex: Steven or Stephen you would search for 'Ste'):
  - a. Names entered with all capital letters appear first, followed by those entered with both capital and lower case letters, followed by those entirely in lower case.



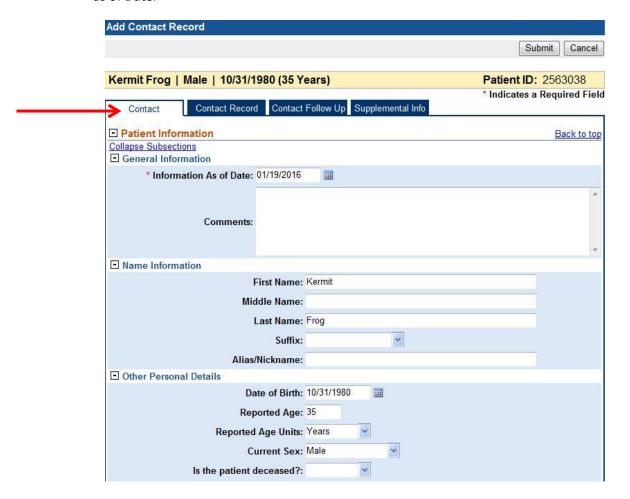
16. If the patient does not exist in NBS (or if you are not sure it is the same person), select Add New and add any known demographic information.

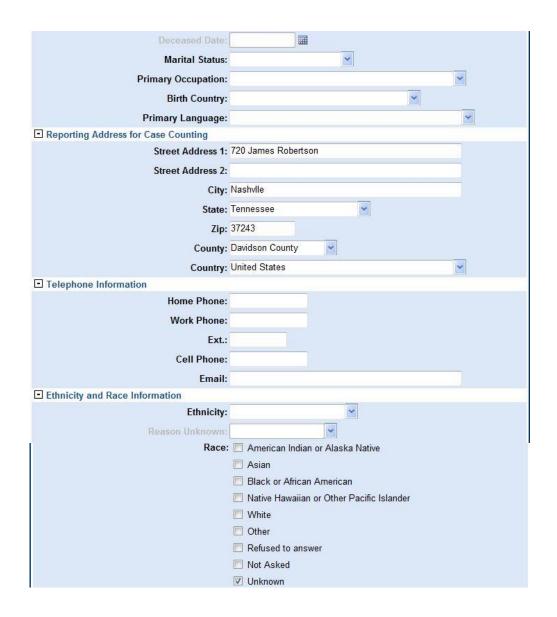


- 17. If the patient is in NBS, select the green check mark next to their name
  - a. This will populate four additional tabs for the contact patient: Contact, Contact Record, Contact Follow Up, and Supplemental Info.

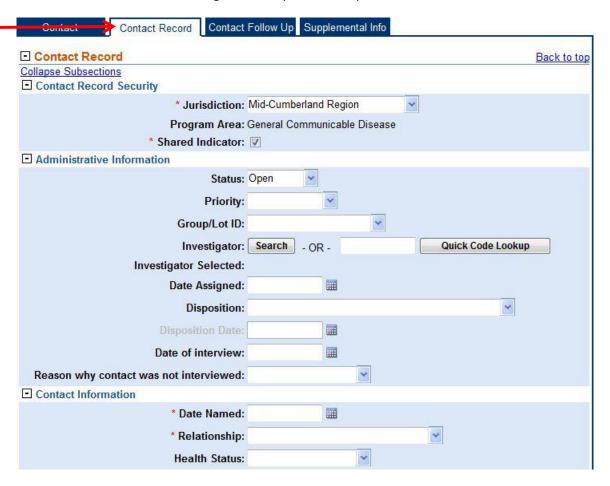


- 18. Under the Contact tab, all patient information that exists in the NBS record will populate.
  - a. Update any information that has changed and/or any new information.
  - b. Most of the information in the contact record cannot be filled out until you have interviewed the contact.
    - i. You can still add a contact record and reopen the record to add the information obtained from the interview. If you do this, be sure to change the 'Information as of Date.'





- 19. Under the Contact Record tab, fill out the following:
  - a. Investigator (Search for yourself or enter your quick code)
  - b. Disposition
  - c. Date of Interview
  - d. Reason why contact was not interviewed, if applicable
  - e. Date Named (date contact was named by index patient)
  - f. Relationship
  - g. Exposure Type
    - i. If Other Needle Sharing type is selected, enter the type of needle sharing
  - h. First Exposure Date, if known
  - i. Last Exposure Date, if known
  - j. General Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.





20. Under the Contact Follow Up tab, fill out any of the information you know after conducting the interview:



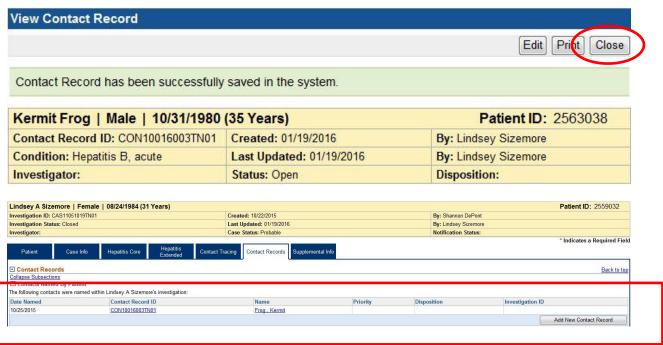
21. Under the Supplemental Info tab, you are not required to enter any information; however, you can use this as a place to upload the HBV/HCV Case Report form or any other supporting documentation from your investigation.



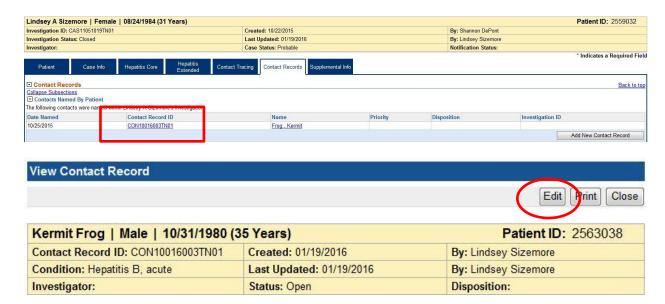
22. Once all tabs within the contact record have been filled out, click on the Contact Record tab, change the contact record status to closed, and click SUBMIT. This will save the contact record.



- a. Select close to close the contact record. This record is now listed under the original patient as a contact.
- b. To add additional contacts, follow the same steps as above.



23. To edit or add additional information within a contact record, click on the Contact Record ID, click Edit, update the contact record accordingly, and click Submit.



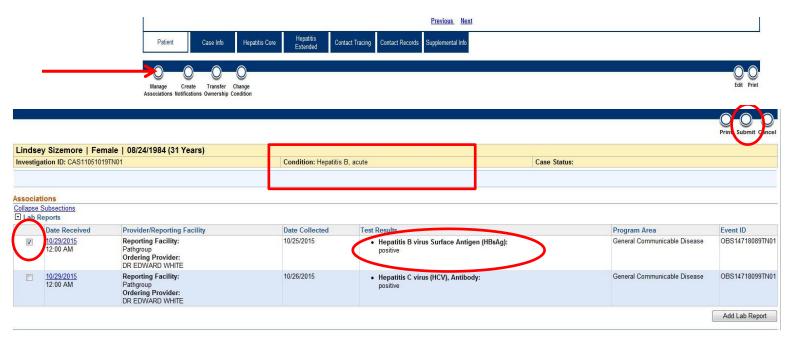
- 24. If you need to change information within an investigation, you can go back into the <u>investigation</u>, click Edit, update the Investigation information accordingly, and click SUBMIT.
  - a. Under the Supplemental Info tab, you are not required to enter any information; however, you can use this as a place to upload the HBV/HCV Case Report form or any other supporting documentation from your investigation.



Go to: Associations | Notes and Attachments | History | Custom Fields

Collapse Sections

25. Once the investigation has been submitted, click on Manage Associations to associate relevant HBV laboratory reports (paper or electronic) to the investigation and click SUBMIT.



#### 26. Guidance for Transferring Jurisdiction

#### **Out of Tennessee Procedure**

#### Out of Tennessee Paper Laboratory Reports

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - o If Yes
    - Transfer jurisdiction to Out of Tennessee, denote the appropriate state (and patient address) where the information will need to be transferred to on laboratory report, and send laboratory report to central office:

Tennessee Department of Health
Andrew Johnson Tower - HIV/STD/Viral Hepatitis Section – 4<sup>th</sup> Floor
Attention: Shannon De Pont
710 James Robertson Parkway
Nashville, TN 37243

- o If No
  - Send paper laboratory report to central office:

Tennessee Department of Health

Andrew Johnson Tower - HIV/STD/Viral Hepatitis Section – 4<sup>th</sup> Floor

Attention: Shannon De Pont

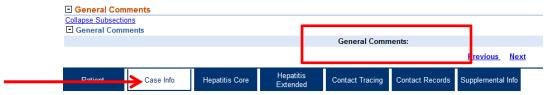
710 James Robertson Parkway

Nashville, TN 37243

Viral Hepatitis staff will coordinate with Surveillance Systems and Informatics Program (SSIP) to alert appropriate state.

#### Out of Tennessee Electronic Laboratory Reports (ELR)\*

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - o If Yes
    - Associate any relevant laboratory reports with this investigation (ELR and any existing paper laboratory reports)
    - Denote the appropriate state where the information will need to be transferred to in the 'General Comments' within the Case Info tab of the investigation



- Select 'Transfer Ownership' and change the jurisdiction to Out of Tennessee
- Notify Surveillance Systems and Informatics Program (SSIP) by emailing the Patient ID Number/PSN to <u>CEDS.Informatics@tn.gov</u> and they will alert the respective state

- o If No
  - Denote the appropriate state where the information will need to be transferred to in the 'Lab Report Comments' section of the lab

# Lab Report Comments Add Comment

- Select 'Transfer Ownership' and change the jurisdiction to Out of Tennessee
- Notify Surveillance Systems and Informatics Program (SSIP) by emailing the Patient ID Number/PSN to <u>CEDS.Informatics@tn.gov</u> and they will alert the respective state.

\*Note: This is only required for Hepatitis B ELR. Hepatitis C ELR will continue to be marked as reviewed and Central Office Viral Hepatitis staff will coordinate with the Surveillance Systems and Informatics Program to address these.

#### **In-State Procedure**

## **In-State Paper Laboratory Reports**

In-State Investigations must be transferred to the jurisdiction listed on the most recent laboratory report received.

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - If Yes
    - Associate any relevant laboratory reports with this investigation (ELR and any existing paper laboratory reports)
    - Coordinate with the appropriate jurisdiction, using Patient ID, to:
      - Transfer the investigation
      - Deliver paper laboratory reports not in NBS
      - Update the address within the investigation to the new address, including the county
  - o If No
    - Open an investigation following Viral Hepatitis investigation protocol
    - Coordinate with the appropriate jurisdiction to:
      - Deliver paper laboratory reports not in NBS

#### In-State Electronic Laboratory Reports (ELR)\*

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - If Yes
    - Associate any relevant laboratory reports with this investigation (ELR and any existing paper laboratory reports)
    - Coordinate with the appropriate jurisdiction, using Patient ID, to:
      - Transfer the investigation
      - Update the address in the investigation to the new address, including the county

## o If No

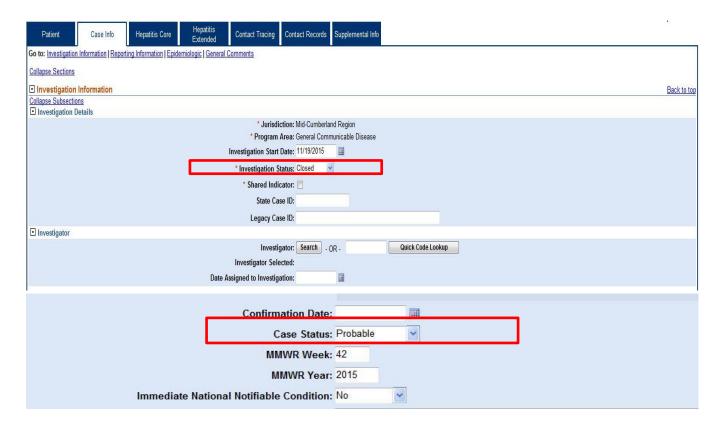
Open an investigation following Viral Hepatitis investigation protocol

\*Note: This is only required for Hepatitis B ELR. Hepatitis C ELR will continue to be marked as reviewed and Central Office Viral Hepatitis staff will coordinate with the Surveillance Systems and Informatics Program to address these.

The "ownership" of the investigation can be changed by clicking on Transfer Ownership at the top of the investigation and transferring the investigation to the correct jurisdiction.



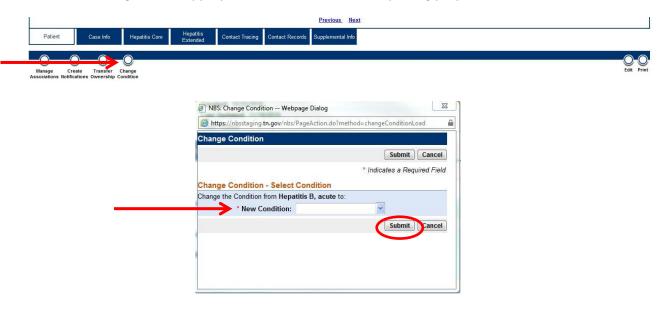
- 27. Investigations must be closed <u>within 30 days</u> of the Investigation Start Date and a case status must be denoted.
  - a. To close the investigation, click on the Case Info tab and change the Investigation Status to "Closed."
  - b. To assign a case status per the CDC/CSTE case definition (Appendix A), click on the Case Info tab and select the appropriate case status.
    - i. During the 30 days while the case is being worked up, a case status of 'Suspect' is appropriate as a placeholder; however, NO cases should be closed with a case status of 'Suspect.'
      - 1. Select the case status based on the information you have at 30 days.
      - 2. The case status can be changed later should you acquire additional information.



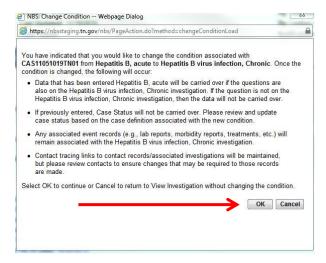
- 28. <u>A notification must be sent for each condition</u>. To do this, select Create Notifications and then select SUBMIT. <u>Refer to Appendix D for more detailed guidance on the Case Notifications Procedure.</u>
  - a. You should do this when submitting when you are closing the investigation to signal to Central Office that you are ready for the case to be reviewed.
  - b. <u>Do NOT create a notification for investigations with an Out of Tennessee jurisdiction or those with a case status of 'Not a Case'.</u>
  - c. Any changes made to the investigation after the CDC notification has been sent will automatically be sent to CDC. There is no need to create another notification.
    - i. Any comments added in the notification comments will be transferred to CDC.



- 29. If after conducting the field investigation it is determined the patient was a case of "hepatitis B, chronic" instead of "hepatitis B, acute", select Change Condition, select the correct Condition and SUBMIT.
  - a. This patient would not be "hepatitis B, acute" with a case status of 'Not a Case. They need to have their condition changed to "hepatitis B, chronic" with a case status of either 'Confirmed' or 'Probable.' It is critically important to change the condition and designate the appropriate case status for CDC reporting purposes.



b. When changing conditions, you will get the following warning message. This is letting you know that the previous condition selected will not carry over, any events (laboratory reports) you associated will remain associated, and any contact tracing links will be maintained. Most importantly, however, it is letting you know that any information currently under the "hepatitis B, acute" extended tab that is not also in the "hepatitis B, chronic" extended will not transfer over. Select OK.



c. The Hepatitis Extended tab will now be populated with the "hepatitis B, chronic" fields and the additional information will need to be filled out.



i. In a situation where you change the condition from acute to chronic, under the Case Info tab, select 'Yes' for the question 'Was the patient assessed for acute disease and determined to not have acute disease?"



# **Notes Regarding HBV Investigations**

With respect to HBV, patients should have no more than one investigation for an acute infection and one investigation for a chronic infection. Creating multiple investigations for acute or chronic HBV affects case count information reported to CDC.

HBV Electronic Laboratory Reports (ELR) MUST be associated with an existing investigation or an investigation must be created. Do <u>NOT</u> mark them as reviewed, as this creates orphan HBV laboratory reports.

If you receive an isolated positive IgM anti-HBc, anti-HBc, anti-HBs, or anti-HBe, please refer to the HBV antibody table in Appendix B for case classification instructions.

If you receive paper laboratory reports with more than one hepatitis test listed (i.e. a laboratory report with both HBV and HCV tests), please make a copy for yourself and mark out the HBV tests prior to sending the laboratory report to central office. Failure to do so may result in you receiving the HBV labs back, as central office administrative staff will not know the HBV labs have been entered.

If in doubt about whether or not to create an investigation or how to associate an ELR, please contact your Central Office Epidemiologist:

Lindsey Sizemore: <a href="mailto:lindsey.sizemore@tn.gov">lindsey.sizemore@tn.gov</a> or 615-770-6928 (CHR, SER, SUL)

Michael Rickles: michael.rickles@tn.gov or 615-253-0679 (JMR, SCR, MSR, WTR)

Jennifer Black: jennifer.black@tn.gov or 615-253-4782 (ETR, KKR, NER)

Travis Sondgerath: travis.sondgerath@tn.gov or 615-253-4452 (MCR, NDR, UCR)

If you need an Accurint search for a Hepatitis case, please fill out the form in Appendix B and send to

Michael Rickles: michael.rickles@tn.gov

# **Hepatitis B Positive Pregnant Female NBS Investigations**

All pregnant women must be serologically screened for hepatitis B virus (HBV) infection for every pregnancy. <u>If a reproductive age woman has a marker of current infection (HBsAg, HBeAg, HBV DNA, IgM anti-HBc)</u>, regardless of HBV condition (acute, chronic)or case status (confirmed, probable), she should be field investigated for pregnancy status.

In order to properly categorize cases of Hepatitis B infection, the public health regions should take the following steps upon receipt of all HBV lab reports, as well as clinical reports of suspected acute HBV:

#### 1) Lab Management of HBV Lab Reports in NBS (performed by the Public Health Regions)

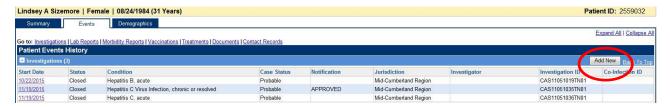
- Electronic Laboratory Reports (ELR):
  - All HBV laboratory reports are to be associated with a client/investigation and have a case status determined.
- Manual/Paper Laboratory Reports:
  - All pertinent paper laboratory reports (positive and negative) that support a case status determination need to be entered into NBS as a laboratory report and associated with the investigation.
  - For best practices, laboratory reports/results given over the phone should be supported by a paper laboratory report. If verbal laboratory results are given, please make every effort (via lab or provider) to obtain a paper copy of these results.

#### 2) Field Investigations of HBV (performed by the Public Health Regions)

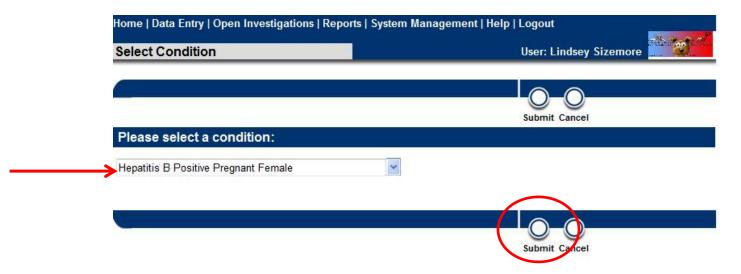
- All women of reproductive age (11-50 years) to rule out pregnancy (even if known to have chronic infection)
  - Standardized Tools Aiding in Field Investigations of Women of Reproductive Age (Appendix B): Provider Requesting Records letter (if no existing HBV investigation), Provider Requesting Records Verifying Pregnancy Status letter (if existing HBV investigation), HBV/HCV Case Report Form, Accurint Record Search Request Form, a letter for contacts to an acute HBV or acute HCV case, and Public Health Authority letter, if necessary

**Note:** Detailed instructions for creating an NBS investigation, determining case status, and conducting field investigations are described below.

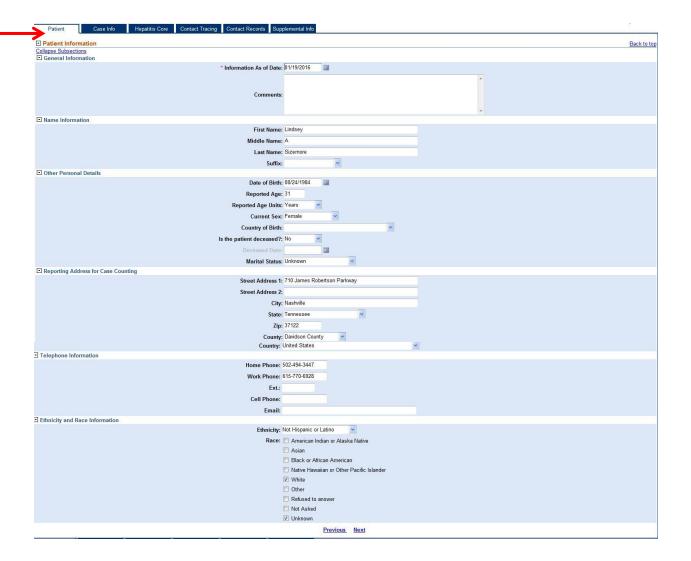
- 1. Be sure the patient's acute and/or chronic investigation(s) are in NBS (if not, refer to Hepatitis B NBS Investigations section).
  - a. After the appropriate HBV investigation has been identified or entered, navigate to the Events Tab, and click Add New:



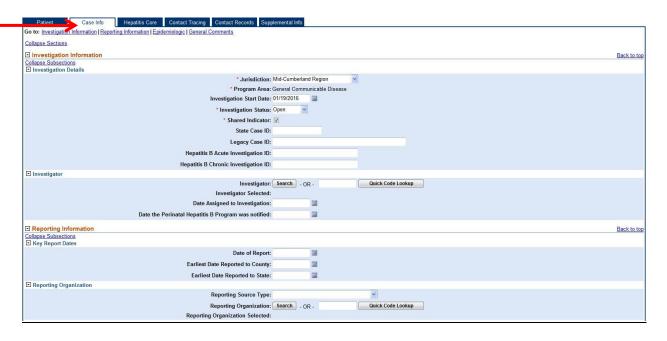
2. For condition, select acute, hepatitis B Positive Pregnant Female and click Submit.

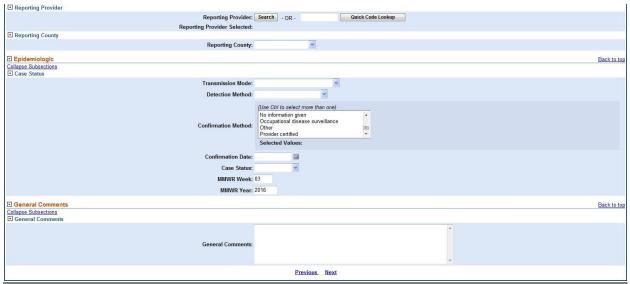


- 3. Under the Patient tab, the following data is pre-populated based on the information within the patient's NBS record (assuming the information was present in patient's record):
  - a. If you are aware that any of the patient's information has changed, update it within the investigation. This will update the information within the NBS record to reflect the most current information. More importantly, it will keep both the past and present information in the record for historical context.
  - b. You should only update this information within the investigation under the Patient tab (see below). DO NOT update this information in the Demographics tab on the Patient home screen as this will impact the historical data within NBS.



- 4. Under the Case Info tab, the Jurisdiction, Program Area, Investigation Start Date, Investigation Status, MMWR Week, and MMWR Year are pre-populated based on the information within the patient's NBS record (assuming the information was present in patient's record) and are founded on the date you open the investigation:
  - a. You will ONLY need to fill out the following information for surveillance purposes:
    - i. State Case ID the REDCap number assigned by the Perinatal Hepatitis B Coordinator
    - ii. Hepatitis B Acute Investigation ID and/or Hepatitis B Chronic Investigation ID
      - 1. This is the investigation ID number and starts with "CAS"
    - iii. Investigator (Search for yourself or enter your quick code)
    - iv. Date the Perinatal Hepatitis B Program was notified
    - v. General Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.





- 5. The Hepatitis Core tab appears within the investigation for all hepatitides.
  - a. You will need to fill out the following information for surveillance purposes (note: for unknown, select unknown from the drop down):
    - i. Reason for Testing (check all that apply), if known
    - ii. Is the patient pregnant? Enter YES (you would not have opened the investigation if she wasn't).
      - 1. Enter the Due Date and the number of living children (if known)
    - iii. Fill in any lab criteria that pertain to the most recent HBV lab if a HBV lab was not conducted as part of a pregnancy panel. If a lab was conducted as part of a pregnancy panel, refer to that lab.
      - 1. For the iii section only, if there is information you do not know, you can leave the fields blank. You do not need to select Unknown.
    - iv. Has the patient ever received a vaccination for Hepatitis B?
      - 1. If yes, how many does of Hepatitis B vaccine did the patient receive?
    - v. Vaccine Dose Number (most recent vaccine of the series), if known
    - vi. Vaccine Administered Date (most recent vaccine of the series), if known





6. Under the Contact Tracing tab, you are not required to enter any information.



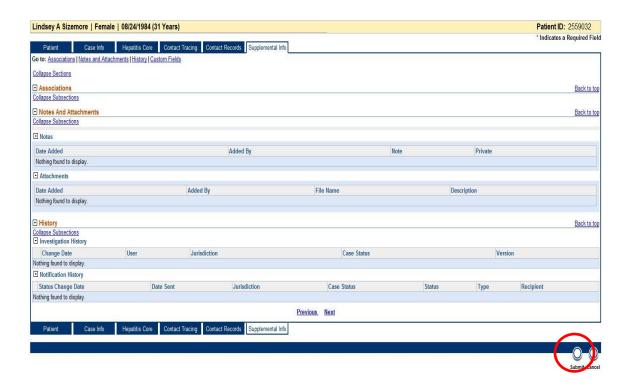
7. Under the Contact Records tab, you are not required to enter any information.



8. Under the Supplemental Info tab, you are not required to enter any information; however, you can use this as a place to upload any supporting documentation from your investigation.



9. Once all tabs within the investigation have been filled out, click SUBMIT. This will save the investigation.



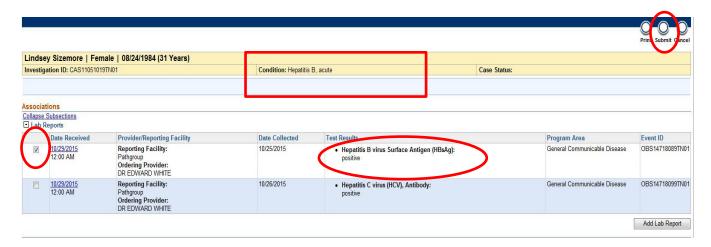
 a. If you need to change information within an investigation, you can go back into the investigation, click Edit, update the Investigation information accordingly, and click SUBMIT.



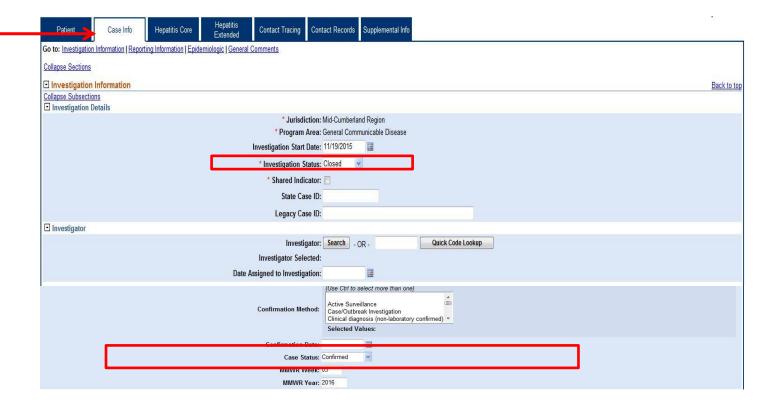
10. Once the investigation has been submitted, click on Manage Associations to associate hepatitis B laboratory reports (paper or electronic) related to the current pregnancy to the investigation:



- a. Select the most recent HBV lab and click Submit.
  - The most recent lab will be associated with the HBV chronic investigation (or the acute investigation in the absence of a chronic investigation) AND the Hepatitis B Positive Pregnant Female investigation.



- 11. Investigations must be closed within 30 days of the Investigation Start Date and a case status must be denoted.
  - a. To close the investigation, click on the Case Info tab and change the Investigation Status to "Closed."
  - b. To assign a case status, click on the Case Info tab and select the appropriate case status.
    - i. The case status should be 'confirmed' for all Hepatitis B positive pregnant female investigations. (You wouldn't have opened the investigation if they weren't pregnant).
  - c. Click Submit



- 12. <u>Please do NOT send a notification for this condition</u>. To do this, select Create Notifications and then select SUBMIT. <u>Refer to Appendix D for more detailed guidance on the Case Notifications Procedure</u>.
  - a. You should do this when you are closing the investigation to signal to Central Office that you are ready for the case to be reviewed.
    - i. <u>Do NOT create a notification for investigations with an Out of Tennessee</u> jurisdiction or those with a case status of 'Not a Case.'
  - b. Any changes made to the investigation after the CDC notification has been sent will automatically be sent to CDC. There is no need to create another notification.
    - i. Any comments added in the notification comments will be transferred to CDC.



# **Notes Regarding Hepatitis B Positive Pregnant Female Investigations**

With respect to HBV, patients should have no more than one investigation for an acute infection and one investigation for a chronic infection. Creating multiple investigations for acute or chronic affects case count information reported to CDC.

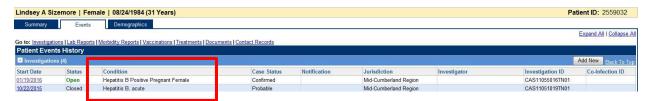
If a reproductive age woman has a marker of current infection (HBsAg, HBeAg, HBV DNA, IgM anti-HBc), regardless of HBV condition (acute, chronic) or case status (confirmed, probable), she should be field investigated for pregnancy status. Even if you receive a laboratory such as 'HBV DNA not detected', the patient should still be assessed for pregnancy.

<u>Each pregnancy is a new event – Hepatitis B, Positive Pregnant Female.</u> As a result, you must open a <u>new investigation for each pregnancy with the condition 'Hepatitis B, Positive Pregnant Female.'</u> Do not enter a second chronic investigation to denote pregnancy.

If a patient is investigated for pregnancy status and found not to be pregnant, please denote this in the general comments of the HBV investigation with the date the pregnancy investigation was conducted.

For example, a patient could have three pregnancy HBV investigations, denoting each of their three pregnancies, as well as an acute and/or chronic HBV investigation. There should only be one acute and/or one chronic investigation but there can be multiple HBV pregnancy investigations.

In the example below, there is one HBV acute investigation and one Hepatitis B Positive Pregnant Female Investigation. This tells us that the patient was diagnosed with HBV while in her acute stage and she hasn't had additional lab reports that were greater than six months from the collection date of the lab report associated with her acute HBV investigation. Additionally, this tells me she has been pregnant one time while being positive for HBV since the implementation of the Hepatitis B Positive Pregnant Female condition in 2016.



If in doubt about whether or not to create an investigation or for any other questions regarding Hepatitis B Positive Pregnant Females, please contact Janice Johnson: M.Janice.Johnson@tn.gov or 615-253-1359.

## **Hepatitis B Positive Pregnant Female NBS and Field Investigations**

You get a Positive Lab of Current Infection (HBsAg, HBeAg, HBV DNA, or IgM anti-HBc) For a Woman of Reproductive Age (11-50)**Does the Patient Have an existing NBS** Investigation? If no: If yes: 1. Open an investigation with the 1. Add the laboratory report and appropriate condition (field update case status (if necessary). investigating if acute). 2. Conduct a field investigation to 2. Conduct a field investigation to determine if the patient is pregnant. determine if the patient is pregnant. **Is Patient Pregnant?** If yes: If no: \* 1. Alert your regional Perinatal HBV Denote the date and that the patient Coordinator. is not pregnant in the General 2. Open a 'Hepatitis B Positive Comments within the Case Info tab of Pregnant Female' NBS investigation. the 'Hepatitis B, acute' or 'Hepatitis B, 3. Fill in the data needed in the chronic' investigation. Patient, Case Info, and Hepatitis Core Example: '10/26/2016 - field tabs as indicated by pages 51-54 of investigated and patient found to not the User Guide. be pregnant.' 4. Close the NBS investigation and

\*Although not preferred, in lieu of denoting pregnancy status in the General Comments of the HBV investigation, you may elect to open a 'Hepatitis B Positive Pregnant Female' NBS investigation and denote case status as 'Not a Case' for each pregnancy investigation.

denote case status as 'confirmed.'

# **Perinatal Hepatitis B NBS Investigations**

Only HBSAg positive infants one month to 24 months of age who were born in the United States or in U.S. territories to an HBsAg-positive mother are entered into NBS.

All infants born to HBsAg positive mothers (HBsAg positive and HBsAg negative) are tracked in a separate (REDCap) database.

Please contact your Regional Perinatal HBV Coordinator or Janice Johnson at <a href="M.Janice.Johnson@tn.gov">M.Janice.Johnson@tn.gov</a> or 615-253-1359 with any questions you may have pertaining to perinatal HBV investigations.

# **Hepatitis C NBS Investigations**

Acute HCV is reportable to the Health Department (HD).

In order to properly categorize cases of Hepatitis C infection, the HD and public health regions should take the following steps upon receipt of HCV lab reports, as well as clinical reports of suspected acute HCV:

#### 1) <u>Lab Management of HCV Lab Reports in NBS</u> (performed by the Central Office)

- Electronic Laboratory Reports (ELR):
  - All HCV laboratory reports are to be associated with a client/investigation and have a case status determined.
- Manual/Paper Laboratory Reports:
  - All pertinent paper laboratory reports (positive and negative) that support a case status determination need to be entered into NBS as a laboratory report and associated with the investigation.

#### 2) Field Investigations of HCV (performed by the Public Health Regions)

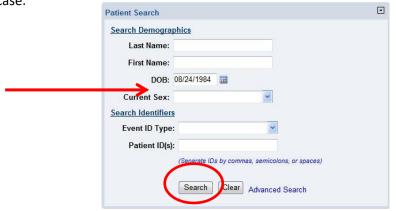
- All **suspected acute HCV** (clinician report, risk factors, associated labs) reported to regions will continue to be field investigated by the regions, regardless of the age of the patient.
  - For best practices, laboratory reports/results given over the phone should be supported by a paper laboratory report. If verbal laboratory results are given, please make every effort (via lab or provider) to obtain a paper copy of these results.
- All other newly reported HCV cases falling into groups at increased risk for acute HCV infection will be field investigated by Central Office.
  - Note: During the course of Central Office investigations (NBS or field), if any
    information suggests acute infection (elevated ALT, etc.), the investigation will be
    forwarded to the respective region for field investigation.
  - Standardized Tools Aiding in Field Investigations of Suspected Acute (Appendix B):
     Provider Requesting Records letter, HBV/HCV Case Report Form, a letter for
     contacts to an acute HBV or acute HCV case, Accurint Records Search Request Form,
     and Public Health Authority letter (if necessary)

**Note:** Detailed instructions for creating an NBS investigation, determining case status, and conducting field investigations for HCV are described below. For additional information pertaining to the provision of HCV testing in local health departments, you may access the HCV Testing Nursing Protocol, HCV Testing and Training Manual, Health Department Just-In Time Training, and the Specimen Collection and Transport Guidelines on SharePoint:

https://tennessee.sharepoint.com/sites/health/CEDEP/HSVH/Documents/Forms/Default.aspx?id=%2Fsites%2Fhealth%2FCEDEP%2FHSVH%2FDocuments%2FViral%20Hepatitis%2FTesting

1. To avoid creating duplicate patient records in NBS, search for the patient by looking up their Date of Birth (DOB), followed by the first common letters of the name (to account for multiple spellings of names, ex: Steven or Stephen you would search for 'Ste'):

a. When searching, names entered with all capital letters appear first, followed by those entered with both capital and lower case letters, followed by those entirely in lower case.



- i. If the patient has more than one NBS profile and needs to be merged, please send an email to <a href="mailto:Shannon.Depont@tn.gov">Shannon.Depont@tn.gov</a> with 'Merge Patient' in the Subject line and, in the email, include your DC# and the PSN/Patient ID. Shannon will determine if the patient meets the merging criteria.
  - 1. If there is an error in the name for one of the patient records, please correct the name before requesting the merge.
  - 2. Do not send any additional information about the patients, such as patient name or date of birth. If this information is required, please contact Shannon De Pont via telephone at 615-532-8518.
  - 3. When the NBS System Administrator merges the patient records, only one of the PSN numbers will be preserved and available when searching. Make note of all of the PSN numbers for the next step.

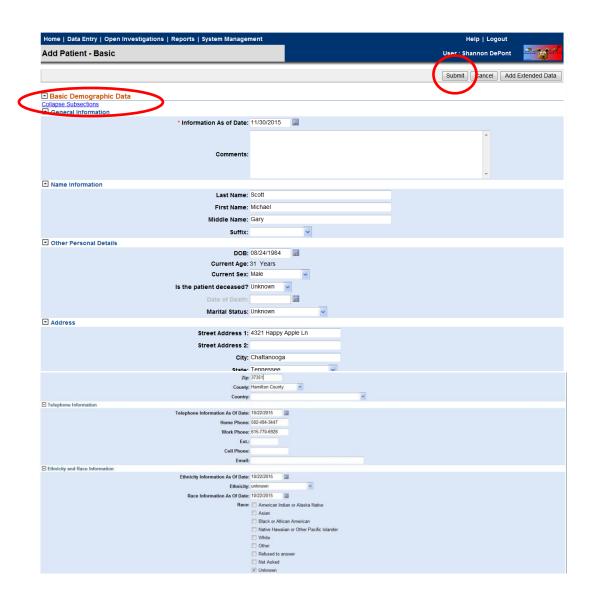
After the patient records are merged, you will need to make sure there are not duplicate lab reports or investigations. All of the lab reports and investigations for the merged patients will now be listed in a single patient record. Follow the steps for managing duplicate lab reports or investigations, and ensure the appropriate associations are made.

2. Before creating an investigation for an Electronic Laboratory Report (ELR), check NBS for the patient as you would when manually entering a paper laboratory report.

- a. If the patient is not in NBS, add them and their laboratory report(s) into NBS:
  - i. Click 'add a new patient':



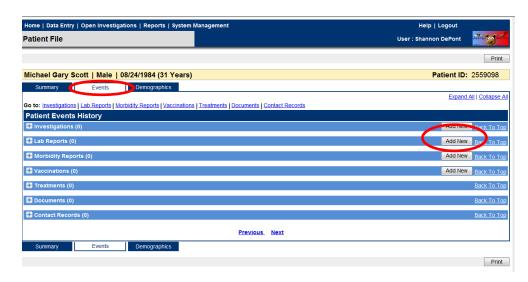
- ii. NBS will direct you to fill in the Basic Demographic Data with any known patient data:
  - 1. Fill out any information appearing on the laboratory report.
  - 2. <u>Unless otherwise specified on the lab, mark the subsequent fields as</u> follows:
    - a. Information As of Date: Auto populates
    - b. Comment: Skip/leave blank unless needed
    - c. Is the patient deceased?: Unknown
    - d. Marital Status: Unknown
    - e. Full Address
      - i. County: Does not auto populate, please research via the following resource:
        - https://tools.usps.com/go/ZipLookupAction input
      - ii. Census Tract: Skip/leave blank
    - f. Phone/email: (if known)
    - g. Ethnicity: Unknown
    - h. Race: Unknown
- iii. Do not enter information for type, assigning authority, or ID Value
- iv. Click Submit



b. If the patient is in NBS, click on their Patient ID:



3. To add a lab, click on the events tab, then Add New next to Lab Reports:

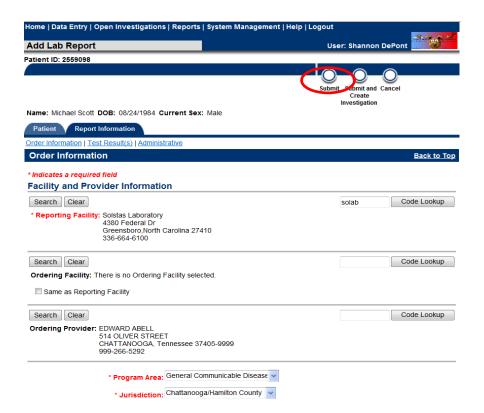


- a. When entering a lab (in a new jurisdiction) for an existing investigation (in a different jurisdiction), refer to step 13 on page 90 for guidance on transferring jurisdiction.
  - i. Mark the laboratory fields as indicated below:
    - 1. Reporting Facility (if facility is not found, refer to appendix C for instruction on adding an organization)
    - 2. Ordering Facility: Only if listed on lab (if facility is not found, refer to appendix C for instruction on adding an organization)
    - 3. Ordering Provider (if provider is not found, refer to appendix C for instruction on adding a provider)
    - 4. Program Area: General Communicable Disease
    - 5. Jurisdiction (auto populates based on county you entered in the previous step)
    - 6. Lab Report Date: Use the lab's resulted/verified/completed/report date
    - 7. Date Received by Public Health: Date you received the lab
    - 8. Ordered Test
      - Refer to NBS Lab Translator sheet (Appendix C), fill in corresponding result, and click Select.
    - 9. Accession Number: If given
    - 10. Specimen Source: Serum, unless otherwise specified
    - 11. Specimen Site: Skip (leave blank)
    - 12. Date Specimen Collected: Collection Date
    - 13. Patient Status at Specimen Collection: Unknown, unless otherwise specified
    - 14. Pregnant:

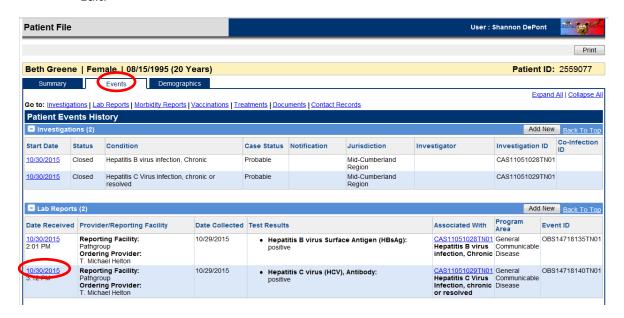
- a. Unknown: If patient is female and has unknown pregnancy status
- b. Pregnant: If patient is female and status is known to be pregnant
- c. Skip: If patient is male

#### 15. Resulted test:

- a. Refer to NBS Lab Translator sheet (Appendix C)
- b. Fill in corresponding result
- c. Click Add Test Result
- 16. Click Submit



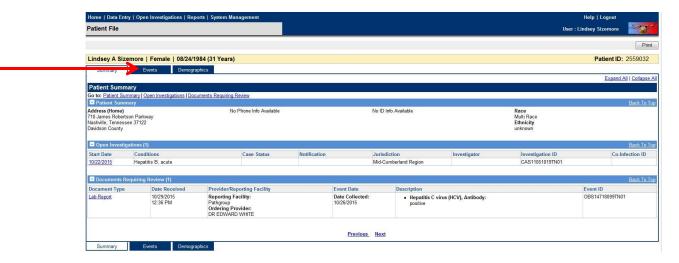
b. To edit a previously entered lab, click the events tab, and then the date received. Click Edit.







- i. If you receive both qualitative and quantitative results, please enter both results. However, if you receive both a numerical result and a log result for the same lab on the same date, please enter only the numerical result.
- ii. Click Submit.
- c. Prior to conducting your field investigation for newly reported HCV cases that are suspected of having acute HCV (clinician report, risk factors, associated labs), check to see if they have an existing HCV investigation by clicking on events:



#### For steps 1-4 below, please refer to the flow chart on page 71 for proper assignment of case status.

- 1. For those with an existing chronic HCV investigation:
  - a. Send the lab(s) to central office, attention Shannon De Pont (refer to Notes Regarding HCV Investigations section for address information).
- 2. For those with an existing acute HCV investigation:
  - a. If additional labs are received related to the acute hepatitis C condition, they should be associated with the existing hepatitis C acute investigation, even if the investigation has been closed, and case status should be updated, if necessary. A second investigation should not be created unless:
    - i. A positive/reactive lab report is received for another viral hepatitis infection (HBV, HAV)
      - Create an investigation for the additional viral hepatitis infection, acute or chronic, as appropriate.
    - ii. A positive lab report is received with collection date greater than <u>12 months</u> from the date of collection (in the existing HCV acute investigation)
      - Send the lab to central office, attention
         Shannon De Pont (refer to Notes Regarding HCV Investigations section for address information).
  - b. If there is documentation (either from the lab itself or from the physician follow-up) that the patient has been treated and achieved sustained virologic response and you receive additional positive HCV lab reports, create a new acute HCV investigation.
- 3. For those with existing acute <u>and</u> chronic HCV investigations:
  - a. Send the lab to central office, attention Shannon De Pont (refer to Notes Regarding HCV Investigations section for address information).
- 4. For those with multiple existing acute or multiple existing chronic HCV investigations:
  - a. Refer to the earliest investigation and update the case status (if necessary), associate all HCV labs with this investigation, and change the case status for the repetitive HCV chronic investigations to 'not a case.'

i. For example, if you have a chronic HCV investigation with an investigation start date of 6/17/2006 and another with an investigation start date of 9/30/2011, you will update the case status for the 6/17/2006 investigation (if necessary), associate all HCV labs to the 6/17/2006 investigation, and change the case status for the 9/30/2011 investigation to 'not a case.' This will ensure our case counts to CDC are correct.

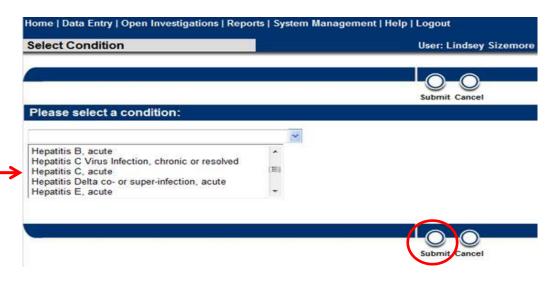
Acute HCV					12 Months After Onset of Acute HCV	Chronic HCV		
Case Status	Symptoms	Jaundice or ALT > 200 IU/L	HCV Ab(+)	NAT(+) or HCV Ag(+)	If receive additional lab results dated > 12 months of onset of acute HCV infection, open a chronic HCV investigation	Case Status	HCV Ab(+)	NAT(+) or HCV Ag(+)
Confirmed	٧	٧	(+/-)	٧		Confirmed	(+/-)	٧
						Probable		
Probable*	٧	٧	٧	х		Confirmed	(+/-)	٧
						Probable	٧	Х

<sup>\*</sup> If receive positive HCV NATor positive HCV Ag results dated < 12 months of onset of "acute HCV, probable", reclassify as "acute HCV, confirmed".

4. To create a HCV investigation, click Add New:



a. For condition, select acute, hepatitis C if you are preparing to do a field investigation.
 Otherwise, send the lab to central office, attention Shannon De Pont (refer to Notes Regarding HCV Investigations section for additional information).



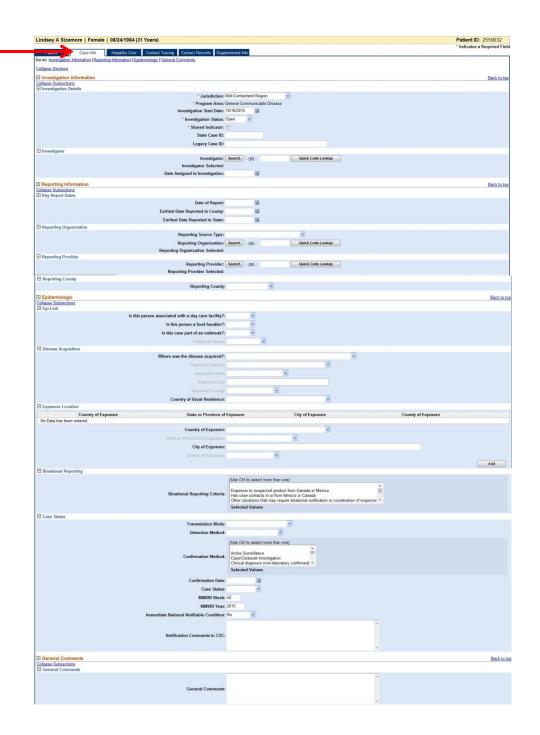
- i. In the prior NBS Hepatitis pages, you could only select "Hepatitis" as the condition and would modify the diagnosis within the investigation to reflect "hepatitis C, acute" or "hepatitis C, past or present" (chronic) prior to closing the investigation.
- ii. "Hepatitis" is still an option for condition; however, we request that you choose the specific condition ("hepatitis C, acute" or "hepatitis C, chronic") from the beginning.
- iii. The condition you choose from the beginning makes a difference in which extended tabs you will have access to.
  - 1. If the condition selected is acute, you are planning to conduct a field investigation, which includes sending out the provider requesting records letter (Appendix B).
  - 2. Once the provider requesting records letter is received back, you can use this information to fill out the case report form (Appendix B). This will be used to populate the NBS tabs discussed below.
- 5. Under the Patient tab, the following data is pre-populated based on the information within the patient's NBS record (assuming the information was present in patient's record):
  - a. If you are aware that any of the patient's information has changed, update it within the investigation. This will update the information within the NBS record to reflect the most

current information. More importantly, it will keep both the past and present information in the record for historical context.

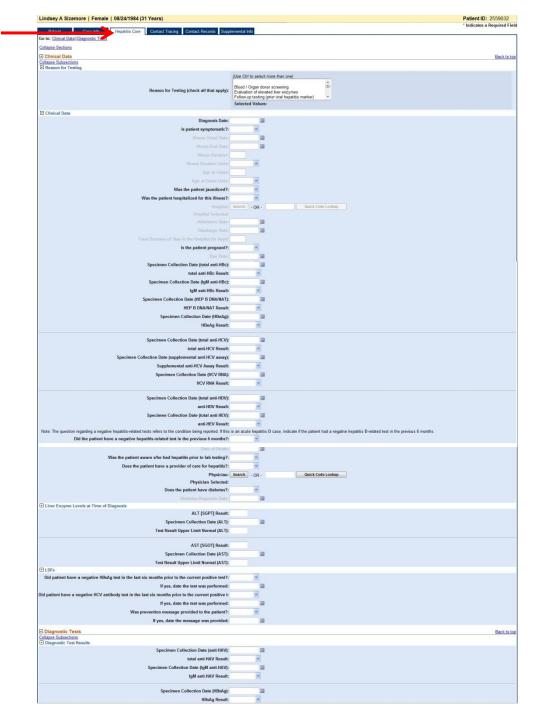
You should only update this information within the investigation under the
 Patient tab (see below). DO NOT update this information in the Demographics
 tab on the Patient home screen as this will impact the historical data within
 NBS.

Lindsey A Sizemore   Female   08/24/1984 (31 Year	rs)	Pati
Patient Case Info Hepatitis Core	Hepatitis Extended Contact Tracing Contact Records Supplemental Info	
■ Patient Information		
Collapse Subsections  General Information		
General montation	* Information As of Date: 11/19/2015	
		^
	Comments:	
		_
■ Name Information		
	First Name: Lindsey	
	Middle Name: A	
	Last Name: Sizemore	
☐ Other Personal Details	Suffix: ⊌	
	Date of Birth: 08/24/1984	
	Reported Age: 31	
	Reported Age Units: Years	
	Current Sex: Female	
	Country of Birth:	
	Deceased Date:	
Reporting Address for Case Counting		
	Street Address 1: 710 James Robertson Parkway	
	Street Address 2:	
	City: Nashville	
	State: Tennessee  Zip: 37122	
	County: Davidson County	
	Country: United States	
Telephone Information		
	Home Phone: 502-494-3447	
	Work Phone: 615-770-6928	
	Ext.: Cell Phone:	
	Cell Phone: Email:	
■ Ethnicity and Race Information	- Lindii.	
	Ethnicity: unknown	
	Race: American Indian or Alaska Native	
	Slack or African American	
	Native Hawaiian or Other Pacific Islander	
	Other	
	Not Asked	
	✓ Unknown	
	Previous Next	

- 6. Under the Case Info tab, the Jurisdiction, Program Area, Investigation Start Date, Investigation Status, MMWR Week, MMWR Year, and Immediate National Notifiable Condition are prepopulated based on the information within the patient's NBS record (assuming the information was present in patient's record) and are based on the date you open the investigation:
  - a. You will fill out the following information for surveillance purposes:
    - i. Date of Interview (if patient was interviewed)
    - ii. Reason why patient was not interviewed (if patient was not interviewed)
    - iii. Investigator (Search for yourself or enter your quick code)
    - iv. Date Assigned to Investigation use the date you were assigned the investigation
    - v. Date of Report use the lab's resulted/verified/completed/report date (same date as the resulted date when the lab is entered)
    - vi. Reporting Source Type (the type of facility that reported the case), if known. If not known, leave blank.
    - vii. Reporting Organization (if organization is not found, refer to appendix C for instruction on adding an organization)
    - viii. Reporting Provider (the provider who reported the case), if known. If not known, leave blank. (If provider is not found, refer to appendix C for instruction on adding a provider)
    - ix. Is this case part of an outbreak?
      - 1. If yes, select the outbreak name (central office will assign an outbreak name if this occurs)
    - x. Where was this disease acquired, if known? If not known, leave blank.
    - xi. Country of Usual Residence (if outside of the United States)
    - xii. Country of Exposure (if outside of the United States)
    - xiii. Detection Method
    - xiv. Case Status 'suspect' can be selected initially while waiting to receive the provider requesting records letter back; however, it must be changed to reflect the appropriate case status (Appendix A) prior to closing the investigation.
    - xv. General Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.
      - For example, if a patient indicates they share body jewelry, you would indicate that here as it isn't captured elsewhere in the NBS investigation.



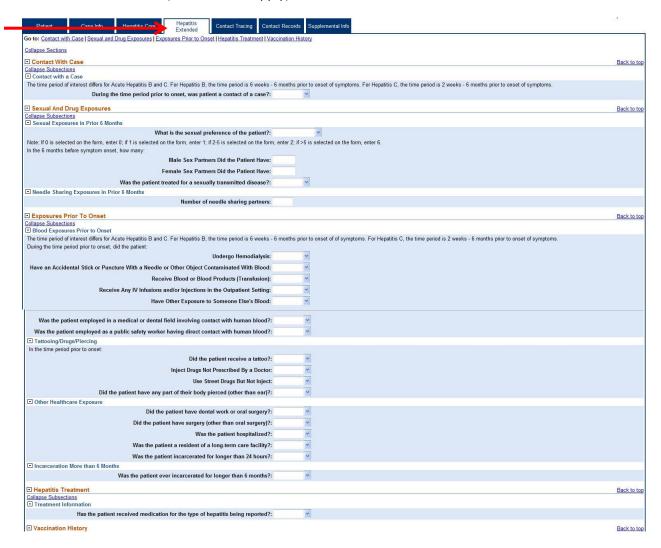
- 7. The Hepatitis Core tab appears within the investigation for all hepatitides.
  - a. Central Office will interpret those items with unknown selected to mean the patient was lost to follow-up or refused to answer.
  - b. Central Office will interpret those items with nothing selected (blank) to mean the case is still being worked up and the field investigation is not complete.
  - c. You will fill out the following information for surveillance purposes:
    - i. Reason for Testing (check all that apply)
    - ii. Diagnosis Date use the lab's resulted/verified/completed/report date (same as the resulted date when the lab is entered)
    - iii. Is patient symptomatic? If yes, and if known:
      - 1. Illness Onset Date
    - iv. Was the patient jaundiced?
    - v. Was the patient hospitalized for this illness? If yes, and if known:
      - 1. Hospital's information
      - 2. Admission Date
      - 3. Discharge Date
    - vi. Is the patient pregnant? If yes,
      - 1. Due Date
    - vii. Did the patient die from this illness? If yes, and if known:
      - 1. Date of Death
        - a. You must be certain the patient died from the hepatitis indicated as the investigation condition and not from another primary cause.
    - viii. Was the patient aware s/he had hepatitis prior to lab testing?
    - ix. Does the patient have a provider of care for hepatitis? If yes, and if known:
      - 1. Physician's information
    - x. Does the patient have diabetes? If yes, and if known:
      - 1. Diabetes diagnosis date
        - a. If you only know the year, please denote the appropriate year and use 01/01 for the month and day, respectively.
      - 2. If patient has diabetes, select all that apply
    - xi. Fill in any lab criteria that pertain to the labs you have entered (or were imported via ELR) that will be associated with this investigation. This should be completed for both positive and negative labs.
      - 1. For numeral xi section only, if there is information you do not know, you can leave the fields blank. You do not need to select Unknown.



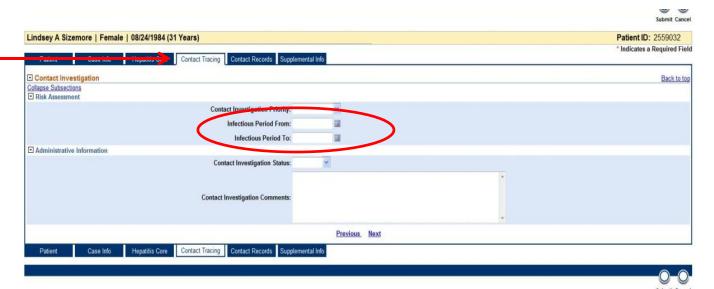
- 8. The Hepatitis Extended tab appears within the investigation and differs depending on what Hepatitis condition was selected when opening the investigation. All known fields in this tab must be filled out after conducting the "hepatitis C, acute" field investigation. If you determine after the field investigation that, based on the information you acquired, the patient meets the case definition for "hepatitis C, chronic" as opposed to "hepatitis C, acute", refer to step 16 on page 93 for how to change the condition to "hepatitis C, chronic".
  - a. Contact with a Case asks if the patient was aware that they were a contact to a known case of HCV. If you select yes, NBS asks for the type of contact the patient had with that

individual (sexual, needle, household, or other). If other is selected, please specify the type of contact in the text box.

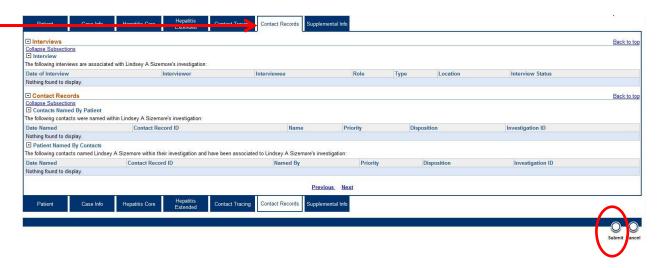
i. In the Hepatitis Extended tab, some fields will not populate unless yes is selected. For example, if you select Yes for "Did the patient receive a tattoo?" another set of questions will appear asking where the tattooing was performed (check all that apply).



- 9. Under the Contact Tracing tab, you are trying to determine who the patient could have exposed to HCV and contact tracing should be conducted on all acute HCV cases. You will fill out the following information for surveillance purposes:
  - a. Infectious Period From 2 weeks prior to the onset date
  - b. Infectious Period To 60 days after the onset date
    - i. Onset symptoms or, in absence of symptoms, the first positive lab
    - ii. http://www.timeanddate.com/date/dateadd.html
  - c. Contact Investigation Status (mark as open until all contacts have been interviewed) and then close.
  - d. Contact Investigation Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.

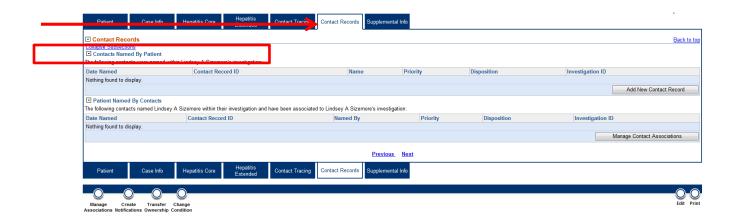


10. Under the Contact Records tab, you must submit the investigation before you can add a contact.



- a. Once you submit, select the contact records tab again. You will need to enter the following information for surveillance purposes:
  - i. Contacts Named by Patient: These are persons that the case you are investigating has named as contacts during their infectious period.
    - 1. You will need to add all named contacts.
  - ii. Patients Named by Contacts: These are persons that named the case you are investigating as a possible contact.
    - 1. Prepopulates from the record(s) of these contacts. If you are adding a new investigation, this field will be blank. You do not need to do anything with this field.

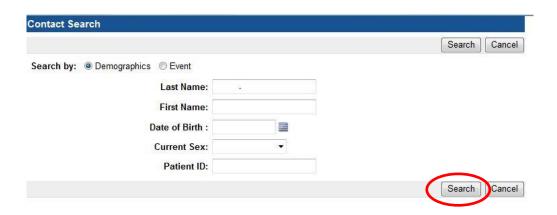
Remember: Always protect the confidentiality of the index patient's identity when interviewing contacts.



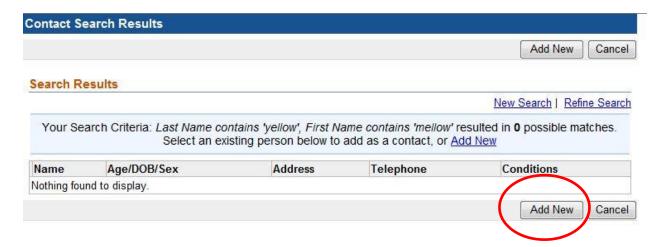
b. To add a new contact record, select Add New Contact Record:

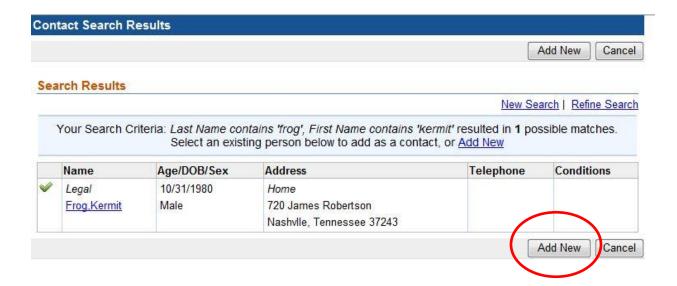


- c. To avoid creating duplicate patient records in NBS, search for the patient by looking up their Date of Birth (DOB), followed by the first common letters of the name (to account for multiple spellings of names, ex: Steven or Stephen you would search for 'Ste'):
  - Names entered with all capital letters appear first, followed by those entered with both capital and lower case letters, followed by those entirely in lower case.

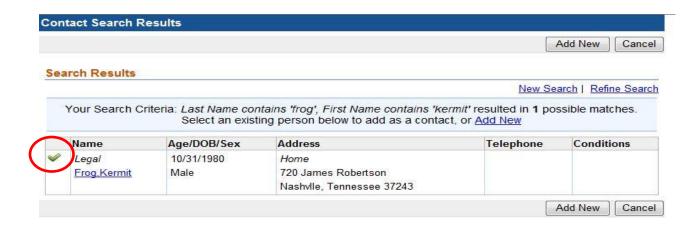


d. If the patient does not exist in NBS (or if you are not sure it is the same person), select Add New and add any known demographic information.

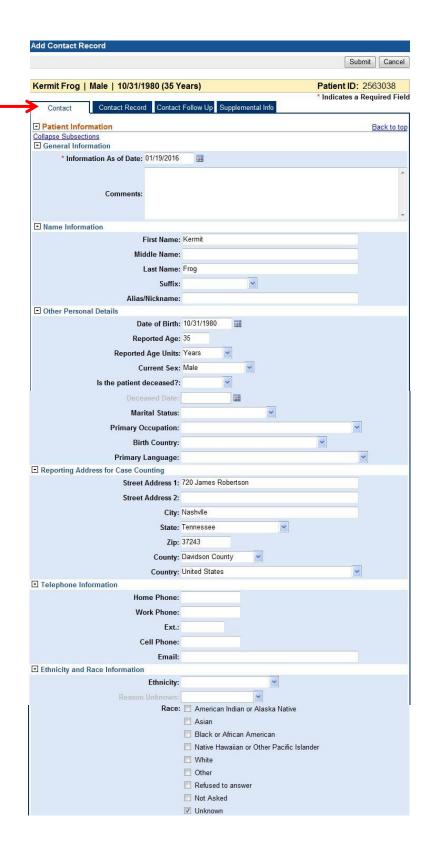




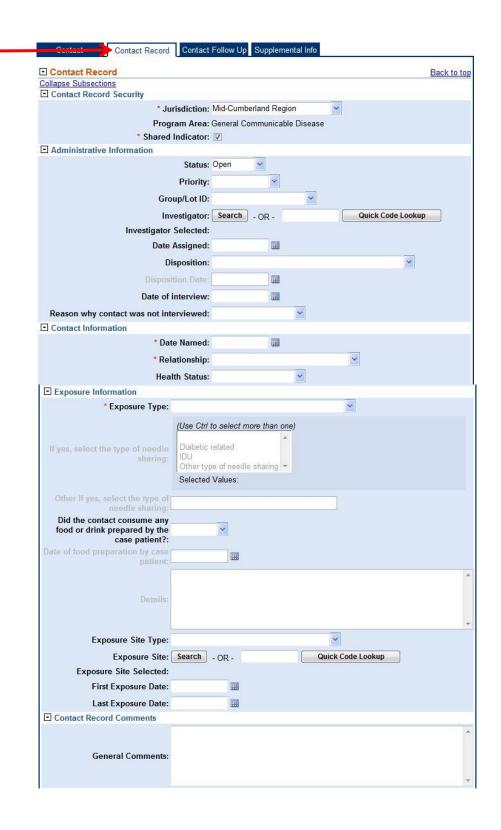
- e. If the patient is in NBS, select the green check mark next to their name
  - i. This will populate four additional tabs for the contact patient: Contact, Contact Record, Contact Follow Up, and Supplemental Info.



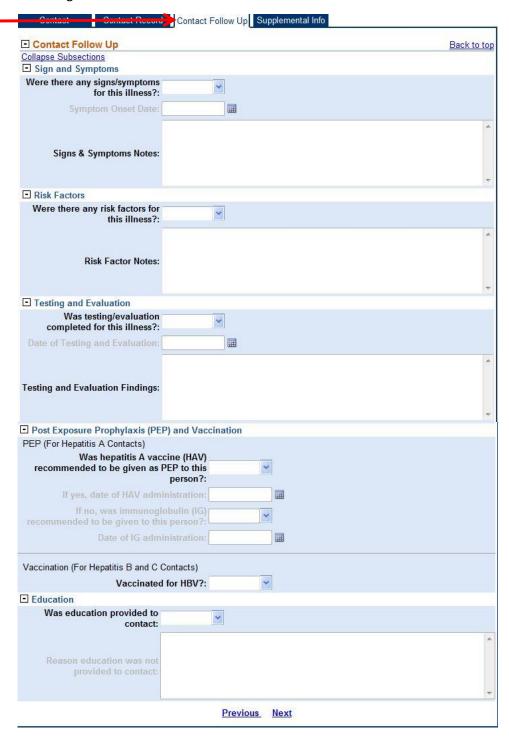
- f. Under the Contact tab, all patient information that exists in the NBS record will populate.
  - i. Update any information that has changed and/or any new information.
  - ii. Most of the information in the contact record cannot be filled out until you have interviewed the contact.
    - You can still add a contact record and reopen the record to add the information obtained from the interview. If you do this, be sure to change the 'Information as of Date.'



- g. Under the Contact Record tab, fill out the following:
  - i. Investigator (Search for yourself or enter your quick code)
  - ii. Disposition
  - iii. Date of Interview
  - iv. Reason why contact was not interviewed, if applicable
  - v. Date Named (date contact was named by index patient)
  - vi. Relationship
  - vii. Exposure Type
    - 1. If Other Needle Sharing type is selected, enter the type of needle sharing
  - viii. First Exposure Date, if known
  - ix. Last Exposure Date, if known
  - x. General Comments this is where you will put any additional information gathered from the field investigation that you feel are pertinent.



h. Under the Contact Follow Up tab, fill out any of the information you know after conducting the interview:



i. Under the Supplemental Info tab, you are not required to enter any information; however, you can use this as a place to upload the HBV/HCV Case Report Form or any other supporting documentation from your investigation.

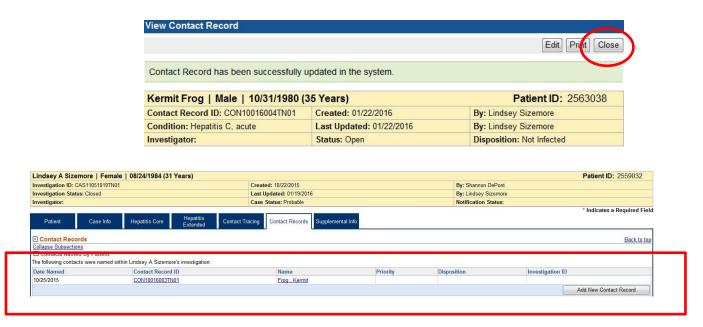


j. Once all tabs within the contact record have been filled out, click on the Contact Record tab, change the contact record status to closed, and click SUBMIT. This will save the contact record.

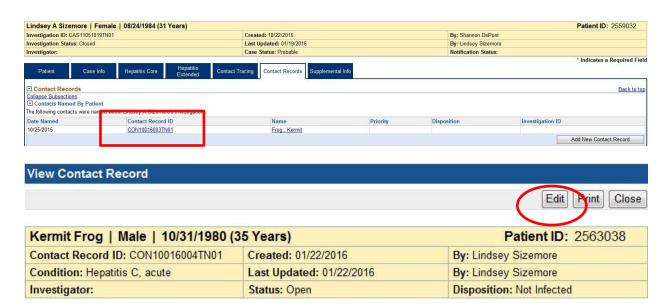


k. Select close to close the contact record. This record is now listed under the original patient as a contact.

I. To add additional contacts, follow the same steps as above.



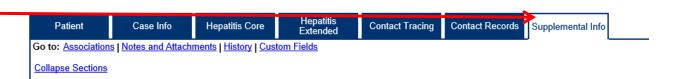
m. To edit or add additional information within a contact record, click on the Contact Record ID, click Edit, update the contact record information accordingly, and click Submit.



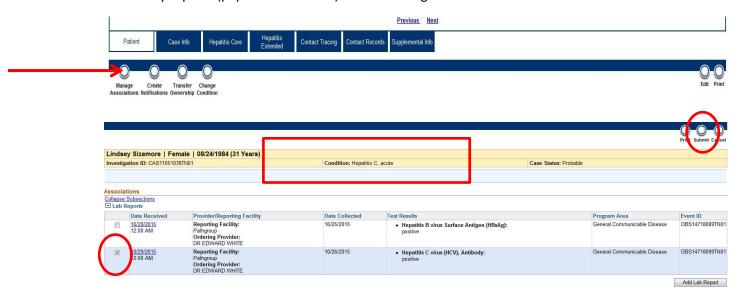
10. If you need to change information within an investigation, you can go back into the investigation, click Edit, update the Investigation information accordingly, and click SUBMIT.



11. Under the Supplemental Info tab, you are not required to enter any information; however, you can use this as a place to upload the HBV/HCV Case Report form or any other supporting documentation from your investigation.



12. Once the investigation has been submitted, click on Manage Associations to associate HCV laboratory reports (paper or electronic) to the investigation:



# 13. Guidance for Transferring Jurisdiction

# **Out of Tennessee Procedure**

# Out of Tennessee Paper Laboratory Reports

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - If Yes

Transfer jurisdiction to Out of Tennessee; denote the appropriate state (and patient address) where the information will need to be transferred to on laboratory report, and send laboratory report to central office:

Tennessee Department of Health

Andrew Johnson Tower - HIV/STD/Viral Hepatitis Section – 4<sup>th</sup> Floor

Attention: Shannon De Pont

710 James Robertson Parkway

Nashville, TN 37243

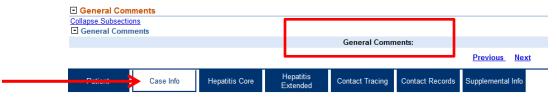
- o If No
  - Send paper laboratory report to central office:

Tennessee Department of Health
Andrew Johnson Tower - HIV/STD/Viral Hepatitis Section – 4<sup>th</sup> Floor
Attention: Shannon De Pont
710 James Robertson Parkway
Nashville, TN 37243

Viral Hepatitis staff will coordinate with Surveillance Systems and Informatics Program (SSIP) to alert appropriate state.

# Out of Tennessee Electronic Laboratory Reports (ELR)\*

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - If Yes
    - Associate any relevant laboratory reports with this investigation (ELR and any existing paper laboratory reports)
    - Denote the appropriate state where the information will need to be transferred to in the 'General Comments' within the Case Info tab of the investigation



- Select 'Transfer Ownership' and change the jurisdiction to Out of Tennessee
- Notify Surveillance Systems and Informatics Program (SSIP) by emailing the Patient ID Number/PSN to CEDS.Informatics@tn.gov and they will alert the

# respective state

- o If No
  - Denote the appropriate state where the information will need to be transferred to in the 'Lab Report Comments' section of the lab

# Add Comment

- Select 'Transfer Ownership' and change the jurisdiction to Out of Tennessee
- Notify Surveillance Systems and Informatics Program (SSIP) by emailing the Patient ID Number/PSN to <u>CEDS.Informatics@tn.gov</u> and they will alert the respective state

\*Note: This is only required for Hepatitis B ELR. Hepatitis C ELR will continue to be marked as reviewed and Central Office Viral Hepatitis staff will coordinate with the Surveillance Systems and Informatics Program to address these.

# **In-State Procedure**

# <u>In-State Paper Laboratory Reports</u>

In-State Investigations must be transferred to the jurisdiction listed on the most recent laboratory report received.

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - If Yes
    - Associate any relevant laboratory reports with this investigation (ELR and any existing paper laboratory reports)
    - Coordinate with the appropriate jurisdiction, using Patient ID, to:
      - Transfer the investigation
      - Deliver paper laboratory reports not in NBS
      - Update the address within the investigation to the new address, including the county
  - o If No
    - Open an investigation following Viral Hepatitis investigation protocol
    - Coordinate with the appropriate jurisdiction to:
      - Deliver paper laboratory reports not in NBS

# In-State Electronic Laboratory Reports (ELR)\*

- Does the patient have an existing non-perinatal Hepatitis B or Hepatitis C NBS investigation?
  - o If Yes
    - Associate any relevant laboratory reports with this investigation (ELR and any existing paper laboratory reports)
    - Coordinate with the appropriate jurisdiction, using Patient ID, to:
      - Transfer the investigation

- Update the address within the investigation to the new address, including the county
- o If No
  - Open an investigation following Viral Hepatitis investigation protocol

\*Note: This is only required for Hepatitis B ELR. Hepatitis C ELR will continue to be marked as reviewed and Central Office Viral Hepatitis staff will coordinate with the Surveillance Systems and Informatics Program to address these.

The "ownership" of the investigation can be changed by clicking on Transfer Ownership at the top of the investigation and transferring the investigation to the correct jurisdiction.

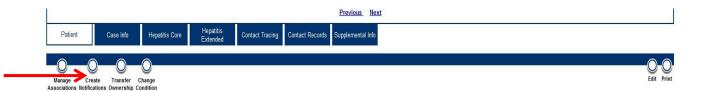


- 14. Investigations must be closed <u>within 30 days</u> of the Investigation Start Date and a case status must be denoted.
  - a. To close the investigation, click on the Case Info tab and change the Investigation Status to "Closed."
  - b. To assign a case status per CDC/CSTE case definitions (Appendix A), click on the Case Info tab and select the appropriate case status.
    - During the 30 days while the case is being worked up, a case status of 'Suspect' is appropriate as a placeholder; however, NO cases should be closed with a case status of 'Suspect.'
      - 1. Select the case status based on the information you have at 30 days.
      - 2. The case status can be changed later should you acquire additional information.



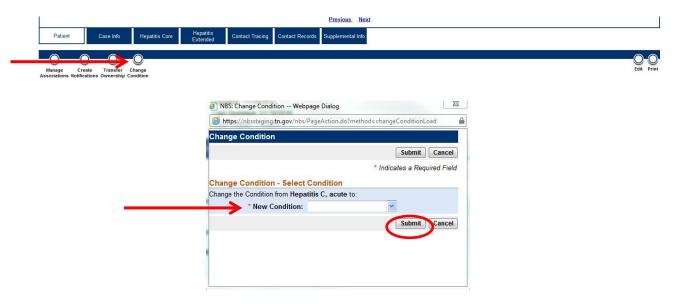


- 15. <u>A notification must be sent for each condition</u>. To do this, select Create Notifications and then select SUBMIT. Refer to Appendix D for more detailed guidance on the Case Notifications Procedure.
  - a. You should do this when you are closing the investigation to signal to Central Office that you are ready for the case to be reviewed.
    - i. <u>Do NOT create a notification for investigations with an Out of Tennessee</u> jurisdiction or with a case status of 'Not a Case.'
  - b. Any changes made to the investigation after the CDC notification has been sent will automatically be sent to CDC. There is no need to create another notification.
    - i. Any comments added in the notification comments will be transferred to CDC.

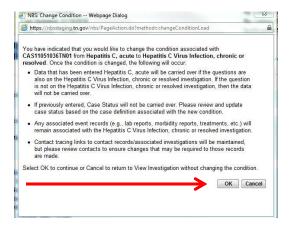




- 16. If after conducting the field investigation it is determined the patient was a case of "hepatitis C, chronic" instead of "hepatitis C, acute", select Change Condition, then the New Condition and SUBMIT.
  - a. This patient would <u>not</u> be "hepatitis C, acute" with a case status of 'Not a Case'; however, they would need to have their condition changed to "hepatitis C, chronic" with a case status of either 'Confirmed' or 'Probable.' <u>It is critically important to change the condition and designate the appropriate case status for CDC reporting purposes.</u>



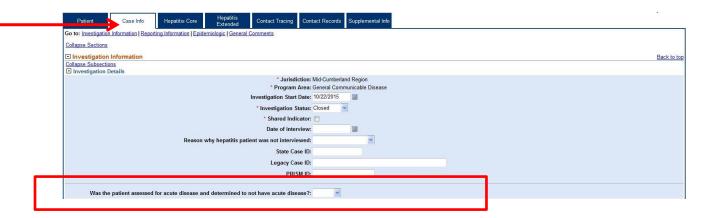
b. When changing conditions, you will get the following warning message. This is letting you know that the previous condition selected will not carry over, any events (laboratory reports) you associated will remain associated, and any contact tracing links will be maintained. Most importantly, however, it is letting you know that any information currently under the "hepatitis C, acute" extended tab that is not also in the "hepatitis C, chronic" extended will not transfer over. Select OK.



c. The Hepatitis Extended tab will now be populated with the "hepatitis C, chronic" fields. You do not need to fill out the additional information related to the HCV chronic condition if you don't have it (i.e. you don't need to try to acquire it; however, if you have it, please enter it).



i. In a situation where you changed the condition from acute to chronic, under the Case Info tab, select 'Yes' for the question 'Was the patient assessed for acute disease and determined to not have acute disease?"



# **Notes Regarding HCV Investigations**

With respect to HCV, patients should have no more than one investigation for an acute infection and one investigation for a chronic infection. Creating multiple investigations for acute or chronic affects cases count information reported to CDC.

HCV Electronic Laboratory Reports (ELR) not associated with an investigation can continue to be marked as reviewed; however, you will need to type the county name in the Lab Report Comments section before you mark it as reviewed.



This process will create orphan HCV laboratory reports; however, central office surveillance staff will address these. Additionally, often times ALT results are received via ELR and we understand that many will be orphaned in this process. If, when reviewing the orphan labs, we see an elevated ALT in addition to a positive anti-HCV and/or an HCV RNA, we will email the region on a case by case basis and ask them to conduct an acute HCV field investigation.

If you receive paper laboratory reports with more than one hepatitis test listed (i.e. a laboratory report with both HBV and HCV tests), please make a copy for yourself and mark out the HBV tests prior to sending the laboratory report to central office. Failure to do so may result in you receiving the HBV labs back, as central office administrative staff will not know the HBV labs have been entered.

If in doubt about whether or not to create an investigation or how to associate an ELR, please contact your Central Office Epidemiologist:

Lindsey Sizemore: <a href="mailto:lindsey.sizemore@tn.gov">lindsey.sizemore@tn.gov</a> or 615-770-6928 (CHR, SER, SUL)

Michael Rickles: michael.rickles@tn.gov or 615-253-0679 (JMR, SCR, MSR, WTR)

Jennifer Black: jennifer.black@tn.gov or 615-253-4782 (ETR, KKR, NER)

Travis Sondgerath: <a href="mailto:travis.sondgerath@tn.gov">travis Sondgerath: travis.sondgerath@tn.gov</a> or 615-253-4452 (MCR, NDR, UCR)

If you need an Accurint search for a Hepatitis case, please fill out the form in Appendix B and send to Michael Rickles: michael.rickles@tn.gov

Please continue to send HCV laboratory reports that are not associated with suspected acute cases to Central Office, at the address below:

Tennessee Department of Health

Andrew Johnson Tower- HIV/STD/Viral Hepatitis Section – 4<sup>th</sup> Floor

Attention: Shannon De Pont

710 James Robertson Parkway

Nashville, TN 37243

# **Hepatitis D and Hepatitis E NBS Investigations**

Hepatitis D and E are not reportable in the state of Tennessee; however, any lab reports containing Hepatitis D (HDV) or Hepatitis E (HEV) information must be sent to central office. Make a copy if the report contains any other laboratory reports you might need (HAV, HBV, HCV), and send to:

Tennessee Department of Health

Andrew Johnson Tower- HIV/STD/Viral Hepatitis Section – 4<sup>th</sup> Floor

Attention: Lindsey Sizemore

710 James Robertson Parkway

Nashville, TN 37243

For questions pertaining to HDV and HEV labs, please contact Lindsey Sizemore: <a href="mailto:lindsey.sizemore@tn.gov">lindsey.sizemore@tn.gov</a> or 615-770-6928.

Appendix A: CDC/CSTE Case Definitions and NBS Case Status Classification

# 2012 CDC/CSTE HCV Case Definitions: Hepatitis B, acute

# Clinical Description

An acute illness with a discrete onset of any sign or symptom\* consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain),

#### AND

a) jaundice

#### OR

b) peak elevated serum alanine aminotransferase (ALT) level > 100 IU/L during the period of acute illness.

\*A documented negative hepatitis B surface antigen (HBsAg) laboratory test result within 6 months prior to a positive test (either HBsAg, hepatitis B "e" antigen (HBeAg), or hepatitis B virus nucleic acid testing (HBV NAT), including genotype) result does not require acute clinical presentation to meet surveillance case definition.

# Laboratory Criteria for Diagnosis

HBsAg positive **AND** Immunoglobulin M (IgM) antibody to hepatitis B core antigen (IgM anti-HBc) positive (if done)

# CDC Case Classification (Case Status)

**Acute, confirmed**: A case that meets clinical criteria, is laboratory confirmed, and is not known to have chronic hepatitis B.

# Additional Tennessee Department of Health Case Classification (Case Status)

**Acute, probable\***: The following combination of tests:

Symptoms, or jaundice, or ALT >100, positive HBsAg, and unknown IgM anti-HBc

#### OR

Symptoms, or jaundice, or ALT>100, negative HBsAg, and positive IgM anti-HBc

#### ΩR

Regardless of symptoms, HBsAg positive, and IgM anti-HBc positive

#### OR

Regardless of symptoms, HBsAg positive, and unknown IgM anti-HBc

\*Per internal Tennessee Department of Health discussions, if the patient has symptoms but no jaundice or elevated ALT, we will still classify them as acute, probable.

# 2012 CDC/CSTE HCV Case Definitions: Hepatitis B, chronic

# **Clinical Description**

No symptoms are required. Persons with chronic hepatitis B virus (HBV) infection may have no evidence of liver disease or may have a spectrum of disease ranging from chronic hepatitis to cirrhosis or liver cancer.

# Laboratory Criteria for Diagnosis

Immunoglobulin M (IgM) antibodies to hepatitis B core antigen (IgM anti-HBc) negative **AND** a positive result on one of the following tests: hepatitis B surface antigen (HBsAg), hepatitis B e antigen (HBeAg), or nucleic acid test for hepatitis B virus DNA (including qualitative, quantitative and genotype testing) **OR** 

HBsAg positive or nucleic acid test for HBV DNA positive (including qualitative, quantitative, and genotype testing) or HBeAg positive two times at least six months apart. (Any combination of these tests performed 6 months apart is acceptable).

# Case Classification (Case Status)

# Chronic, probable

A person with a single HBsAg positive or HBV DNA positive (including qualitative, quantitative, and genotype testing) or HBeAg positive lab result and does not meet the case definition for acute hepatitis B.

# Chronic, confirmed

A person who meets either of the above laboratory criteria for diagnosis.

#### Comments

Multiple laboratory tests indicative of chronic HBV infection may be performed simultaneously on the same patient specimen as part of a "hepatitis panel." Testing performed in this manner may lead to seemingly discordant results, e.g., HBsAg-negative AND HBV DINA-positive. For the purposes of this case definition, any positive result among the three laboratory results mentioned above is acceptable, regardless of other testing results. Negative HBeAg results and HBV DNA levels below positive cutoff level do not confirm the absence of HBV infection.

# **HBV Case Status Classification Box and Applications of Case Status for HBV**

# Hepatitis B

	1	II	III	IV			
	Symptomatic	☐ Jaundice and/or ALT >100	HBsAg (+)	☐ IgM anti-HBc (+)			
Ac	Acute, Confirmed:						
<ul> <li>Seroconversion: (-) HBsAg within 6mos prior to a (+) HBsAg, HBeAg/HBV NAT; OF</li> <li>All Boxes checked (I, II, III, and IV) OR</li> <li>Boxes I, II, and III checked with unknown IgM anti-HBc</li> <li>Acute, Probable:</li> </ul>							
<ul> <li>[Box I, and/or Box II], plus Box III checked with unknown IgM anti-HBc*; OR</li> <li>Boxes III and IV checked</li> <li>Chronic, Confirmed:</li> </ul>							
☐ Ch		IBc <u>and</u> one (+) of the following BeAg, HBV NAT two times ≥ 6 r	_				
	• One (+) of the	e following : HBsAg, HBeAg, or	HBV NAT				

As highlighted in the footnote above, in order to assign appropriate condition (acute or chronic) and case status (probable or confirmed), it is critical to obtain the IgM anti-HBc result; negative IgM anti-HBc is not synonymous with unknown IgM anti-HBc.

\*While a (-) IgM anti-HBc would make this "Chronic, Confirmed", an absent IgM anti-HBc is not the same as a (-) IgM anti-HBc.

(-) or Unknown HBsAg, plus	Existing investigation in NBS (HAV or HCV)		
	Yes	No	
(+) IgM anti- <u>HBc</u>	Associate labs with existing investigation	Create HBV investigation: Acute, not a case	
(+) anti- <u>HBc</u>	Associate labs with existing investigation	Create HBV investigation: Chronic, not a case	
(+) anti-HBs	Associate labs with existing investigation	Create HBV investigation: Chronic, not a case	
(+) anti- <u>HBe</u>	Associate labs with existing investigation	Create HBV investigation: Chronic, not a case	

**Exception:** If these labs are received on a **woman of reproductive age**, a field investigation will need to be conducted to determine pregnancy status and, if pregnant, acquire additional HBV labs for definitive case status determination.

While an investigation is being worked up, a case status of suspect can be used as a placeholder for the HBV conditions (acute or chronic) during this time.

All investigations must be closed within 30 days using the application of appropriate case status (confirmed, probable, or not a case). A case status of suspect does not fit within the CDC/CSTE case definitions as suspect is not an option.

Central office epidemiologists will be running monthly reports to check for those with an investigation start date that exceeds 30 days and for those closed with a case status of suspect and will reach out to field staff directly if any of these are found.

# 2016 CDC/CSTE Case Definitions: Hepatitis C (acute and chronic)

# Clinical Criteria

An illness with discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain),

#### AND

a) jaundice

#### OR

b) peak elevated serum alanine aminotransferase (ALT) level > 200 IU/L during the period of acute illness.

# **Laboratory Criteria**

A positive test for antibodies to hepatitis C virus (anti-HCV)

# Hepatitis C virus detection test:

Nucleic acid test (NAT) for HCV RNA positive (including quantitative, qualitative or genotyping testing) or a positive test indicating the presence of hepatitis C viral antigen(s) (HCV antigen)\*

# Case Classification (Conditions and Case Status)

**Acute, confirmed**: A case that meets clinical criteria and has a positive hepatitis C virus detection test (HCV NAT or HCV antigen)

#### OR

A documented negative HCV antibody, HCV antigen or NAT laboratory test result followed within 12 months by a positive result of any of these tests (test conversion)

**Acute, probable\*:** A case that meets clinical criteria and has a positive anti-HCV antibody test, but has no reports of a positive HCV NAT or positive HCV antigen tests

# AND

Does not have test conversion within 12 months of has no report of test

\*Per internal Tennessee Department of Health discussions, if the patient has symptoms but no jaundice or elevated ALT, we will still classify them as acute, probable.

**Chronic, confirmed:** A case that does not meet clinical criteria or has no report of clinical criteria **AND** 

Does not have test conversion within 12 months or has no report of test conversion

#### AND

Has a positive HCV NAT or HCV antigen test

**Chronic, probable:** A case that does not meet clinical criteria or has no report of clinical criteria **AND** 

Does not have test conversion within 12 months or has no report of test conversion

# **AND**

Has a positive anti-HCV antibody test, but no report of a positive HCV NAT or positive HCV antigen test\*

# **HCV Case Status Classification Box and Applications of Case Status for HCV**

# **Hepatitis C**

	Symptom(s) <u>plus</u> either a) jaundice or b) ALT >200 IU/L		
	No or unknown	Yes	
HCV Ab(+) only	Chronic, Probable	Acute, Probable	
HCV NAT(+) or HCV Ag(+)	Chronic, Confirmed	Acute, Confirmed	

# Acute, Confirmed:

 Seroconversion: (-) HCV Ab, HCV Ag, or HCV NAT followed by a (+) of any of these within 12 months

While an investigation is being worked up, a case status of suspect can be used as a placeholder for the HCV acute condition.

All investigations must be closed within 30 days using the application of appropriate case status (confirmed, probable, or not a case). A case status of suspect does not fit within the CDC/CSTE case definitions as suspect is not an option.

Central office epidemiologists will be running monthly reports to check for those with an investigation start date that exceeds 30 days and for those closed with a case status of suspect and will reach out to field staff directly if any of these are found.

# **Hepatitis B Testing and Counseling**

# GENERAL INFORMATION

Hepatitis B is a contagious liver disease that results from infection with the hepatitis B virus (HBV). It can range in severity from a mild illness lasting a few weeks to a serious, lifelong illness that damages the liver. Hepatitis B can be either "acute" or "chronic".

Acute hepatitis B infection is a short-term illness that can last a few weeks up to 6 months after exposure to HBV. Adults may or may not show symptoms, and children usually do not show symptoms. If present, symptoms typically appear 6 weeks to 6 months after exposure and may include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, or yellowing of the skin or eyes.

Chronic hepatitis B infection is a long-term illness that occurs when HBV remains in a person's body. Risk for chronic infection is age dependent: about 90% of infants infected with HBV infection at birth will develop chronic infection, while only about 5-10% of adults will develop long term infection. Chronic infection can last a lifetime and may lead to serious liver problems including cirrhosis (scarring of the liver), cancer, and liver failure leading to death.

The best way to prevent HBV infection is to be vaccinated. Hepatitis B is usually spread when blood, semen, or other body fluids from a person infected with HBV enters the body of someone who is not infected. This can happen during sexual contact, when sharing needles or other drug equipment, or from an infected mother to her baby during pregnancy or birth. It can also be transmitted from contact with objects that have even small amounts of infected blood on them (razors, toothbrushes, nail clippers, and medical devices) and unsanitary tattooing equipment. HBV can live outside the body and remain infectious for at least 7 days.

HBV screening begins with a blood test for the Hepatitis B Surface Antigen (HBsAg). A reactive or positive HBsAg test means that an individual is currently infected with HBV. Persons with a positive HBsAg can spread HBV to others regardless if they feel sick or well. Other markers of on-going infection include HBeAg and HBV DNA. Additional blood markers can provide information on whether a patient is immune to HBV based on prior vaccination or due to prior infection that has resolved. Please reference the attached information on interpreting Hepatitis B serology from the CDC. Interpreting some HBV results can be tricky, and individuals may need to be referred to their medical provider for additional follow-up/testing when test results are unclear or inconsistent.

# WHO SHOULD BE TESTED

# **Testing is recommended for:**

- Pregnant women (with each pregnancy)
- Individuals at high-risk for HBV infection, including:
  - o Children born to HBV infected mothers
  - Sexual contacts of HBV positive individuals
  - o History of injection drug use (even once)
  - o Household contacts of HBV positive individuals
  - History of STD or multiple sex partners
  - Men who have sex with men
  - HIV positive individuals
  - Occupational exposure
  - o History of long-term hemodialysis
  - o Persons born in or traveling to regions with intermediate or high rates of HBV

# **PROCEDURE**

- Assess individual's risk status
- Determine need for testing and counseling
- If indicated, screen for HBsAg using currently available test and provide HBV counseling regarding:
  - Test results and instructions for follow-up testing (if indicated)
  - o Risk reduction
  - Additional recommended services

# **COUNSELING**

# **Test results**

- ✓ If HBsAg is negative, the client is not currently infected with HBV
- ✓ If HBsAg is positive, the client has virus in the blood, can spread HBV to others, and needs referral and evaluation by a doctor experienced in diagnosing and treating HBV

# Risk reduction counseling

- ✓ For all clients:
  - Do not share needles or other equipment to inject or snort drugs
  - Do not share other items that may come in contact with another person's blood (medical equipment or personal items)
  - ➤ Avoid unsanitary tattooing
  - > Use condoms consistently during all sexual activity
- ✓ Additionally, for HBV positive clients:
  - > See a doctor regularly
  - Avoid alcohol, acetaminophen (Tylenol), or products containing acetaminophen, as they can damage the liver
  - Consult a health professional before taking any prescription or overthe-counter medications

# Additional recommended services

- ✓ Evaluation of immunization status (including Hepatitis A and Hepatitis B) and provision of indicated vaccines
- ✓ Testing/counseling for Hepatitis C
- ✓ Testing/counseling for other STDs (gonorrhea, chlamydia, syphilis, HIV)
- Preconception counseling and/or contraception to reduce the risk of unintended pregnancy and/or mother-to-child transmission

# REFERENCES

- Centers for Disease Control and Prevention web page for Interpretation of Hepatitis B Serologic Test Results, <a href="http://www.cdc.gov/hepatitis/hbv/pdfs/serologicchartv8.pdf">http://www.cdc.gov/hepatitis/hbv/pdfs/serologicchartv8.pdf</a>
- Centers for Disease Control and Prevention: Recommendations for Routine Testing and Follow-up for Chronic HBV Infection, 2008, http://www.cdc.gov/hepatitis/hbv/PDFs/ChronicHepBTestingFlwUp.pdf
- Viral Hepatitis B information http://www.cdc.gov/hepatitis/hbv/index.htm
- Epidemiology and Prevention of Vaccine-Preventable Diseases, 13th edition
- http://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html World Health Organization web page for Hepatitis B,
  - http://www.who.int/csr/disease/hepatitis/whocdscsrlyo20022/en/index1.html
- Centers for Disease Control and Prevention web page for the ABCs of Hepatitis, http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/ABCTable.pdf

# **Hepatitis C Testing and Counseling**

# GENERAL INFORMATION

Hepatitis C is a contagious liver disease that results from infection with the hepatitis C virus (HCV). It can range in severity from a mild illness lasting a few weeks to a serious, lifelong illness that damages the liver. Hepatitis C can be either "acute" or "chronic".

Acute hepatitis C infection is a short-term illness that occurs within the first 12 months after someone is exposed to HCV. Approximately 75-85% of people who become infected with HCV develop chronic infection; the remaining 15-25% "clear" the virus on their own without treatment and do not develop chronic infection. Chronic hepatitis C infection is a long-term illness that occurs when HCV remains in a person's body. Chronic infection can last a lifetime and, over time, can lead to serious liver problems including cirrhosis and liver failure.

Hepatitis C is usually spread when blood from a person infected with HCV enters the body of someone who is not infected. Today, most people become infected with HCV by sharing needles or other equipment to inject drugs. HCV can also be transmitted from unsanitary tattooing equipment, contact with objects that have even small amounts of infected blood on them (snorting straws, medical equipment, personal items), unprotected sex, or blood transfusion or organ transplant prior to 1992.

Hepatitis C screening begins with an antibody test. A reactive or positive antibody test means that an individual has been infected with the HCV at some point in time, and a second HCV test (an HCV RNA test) is needed to see if the person is chronically infected.

# WHO SHOULD BE TESTED

# **Testing is recommended for all persons:**

- Born from 1945 through 1965, or
- At high-risk for HCV infection, including:
  - o History of injection drug use (even once)
    - History of illicit intranasal drug use (even once)
    - History of unregulated tattoo
    - o History of incarceration over 24 hours
    - o HIV positive individual
    - o History of STD or multiple sex partners
    - o Sexual contact with HCV positive individual
    - o Received a blood transfusion or organ transplant prior to 1992
    - Occupational exposure
  - o Child born to HCV infected mother

# **PROCEDURE**

- Assess client's individual risk status (use HCV rapid antibody test screening tool)
- Determine client's needs (testing, level of counseling)
- Screen for HCV using currently available test
- Provide HCV counseling regarding:
  - Test results and instructions for follow-up testing (if indicated)
  - o Risk reduction
  - Additional recommended services

#### **COUNSELING**

- o Test results
  - ✓ If HCV <u>antibody negative</u>, the client is not currently infected with HCV
    - ➤ For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA may be considered.
  - ✓ IF HCV antibody positive, the client needs a follow-up test (HCV RNA)
    - ➤ If HCV RNA is negative, the client has cleared the infection and is NOT chronically infected
    - ➤ If HCV RNA is positive, the client has virus in the blood and needs referral to and evaluation by a doctor experienced in diagnosing and treating Hepatitis C
- o **Risk reduction** counseling
  - ✓ For all clients:
    - Do not share any needles or other equipment to inject or snort drugs
    - Avoid unsanitary tattooing
    - ➤ Do not share any other items that may come in contact with another person's blood (medical equipment, razors, toothbrushes, or other personal items)
    - Use condoms consistently during all sexual activity
  - ✓ For HCV positive clients
    - > See a doctor regularly
    - > Avoid alcohol
    - Consult a health professional before taking any prescription or overthe-counter medications, as they can damage the liver

#### Additional recommended services

- ✓ Testing/counseling for other STDs (gonorrhea, chlamydia, syphilis, HIV)
- ✓ Evaluation of immunization status (including Hepatitis A and Hepatitis B) and provision of indicated vaccines
- ✓ Preconception counseling and/or contraception to reduce the risk of unintended pregnancy and/or mother-to-child transmission

### REFERENCES

- Centers for Disease Control and Prevention web page for Hepatitis C Information for the Public, http://www.cdc.gov/hepatitis/C/PatientEduC.htm.
- Centers for Disease Control "Hepatitis C: General Information", 2015, <a href="http://www.cdc.gov/hepatitis/HCV/PDFs/HepCGeneralFactSheet.pdf">http://www.cdc.gov/hepatitis/HCV/PDFs/HepCGeneralFactSheet.pdf</a>.
- Centers for Disease Control "Hepatitis C: What to Expect When Getting Tested", 2013, http://www.cdc.gov/hepatitis/HCV/PDFs/HepCGettingTested.pdf.

Appendix B: Standardized Statewide Tools

# **Case Report Form**

Hepatit	tis B or C - C	ase Repor	t Form				Versi	ion: 04/30/2016
INVESTIG								
Investigat	ion start date:		_ Inves	tigator name		Phone		
Date of 1s	st Attempt:	<i>'</i> '	Phon	e Letter	Date of 2nd Atten	npt:/	Phor	ne 🗌 Letter
Date of In	terview/	_/ R	eason no	t interviewed:	Unable to Cor	itact  Refused	Other:	
					NFORMATION			
						Middle:		
	c Case, Parent/G					Country		- Herreless
	£				Zip:	County:		
Employer					ccupation/Setting:		nie.	
	DEMOG	DARKIIC INICO	DMATION			LINICAL & DIAG	JOSTIC DATA	
					_			
	irth:/ of Birth:	Age:		-	Provider Name,	Address, and P	none:	
	Female N	/ale □ Other			ILLNESS ONSE	T DATE:/_	1	
	Hispanic			r/Unknown	ILLNESS DIAGN	NOSIS DATE:	<del></del>	
	Black/African Ar				CLINICAL DATA	_		•
_	American Indian	/Alaska Native			Yes No Unk			
_	Asian					Symptoms?		
_	Native Hawaiian						n/v, diamhea, abd	lominal pain)
	White					Jaundiced?		
	Other Race, spe					Hospitalized If YES, specify: _		
		RATORY TEST				Pregnant?		
Lab Name	E:					If YES, due dat	te: / /	
Α 1	Tatal and HAV	Pos		Unk		Died from H	lepatitis?	
	Total anti-HAV gM anti-HAV			_		If YES, date of	death:/	
в	HBsAg	📙				E LEVELS AT TI		
i	HBeAg		H	H		sult A		π
H	HBV NAT (qual, q	uant			1	TESTING: (check f acute hepatitis	( ail that apply)	
	Geno)					asymptomatic pa	atient with reporte	d risk factors
C a	gM anti-HBc	🛚			_	asymptomatic pa		
	anti-HCV HCV NAT (qual, q	uant			Prenatal scr			
	Geno)				_	f elevated liver en	•	
-	HCVAg	📙	H	H		donor screening		
Da	anti-HDV		H	H	Unknown	sting for previous	marker of viral he	epatitis
E a	anti-HEV	H	H	H	Other: spe	cify:		
				CASE CL	ASSIFICATION	ony		_
		Hen	atitis B		ASSIFICATION		Hepatitis C	
		II		ш	IV		Symptom(s)	nlus either
							a) jaundice or b)	_
Sym	ptomatic Jaund	ice and/or ALT >	100 H	BsAg (+)	M anti-HBc (+)		No or unknown	
Acute, Cor	nfirmed:							
	oconversion: (-) HB	sAg within 6mos	prior to a	(+) HBsAg, HB	eAg/HBV NAT: OR	HCV Ab(+) only	Chronic, Probable	Acute, Probable
	Boxes checked (I, II,	-						
	es I, II, and III chec	ked with unknow	vn IgM ant	i-HBc		HCV NAT(+) or	Chronic,	Acute,
Acute, Pro	bable:					HCV Ag(+)	Confirmed	Confirmed -
	x I, and/or Box II], p		ed with un	known IgM an	ti-HBc*; OR	Acute, Confirme	ed:	
	es III and IV checke	:d					ersion: (-) HCV Ab,	
•	onfirmed:	na (+) afab - fe''-	unione UP-	A= HR.A=	HRV NAT. CO		ed by a (+) of any o	f these within 12
	gM anti-HBc <u>and</u> or HB-A- HB-A- HB\			_		months		
	HBsAg, HBeAg, HB\ robable:	NAI two times	≥ o month	s apart (any co	amd <b>o</b> )			
Chronic, P								

PATIENT HISTORY- ACUTE HEPATITIS B ONLY	CASE NAME:
INFECTION	TIMELINE
Enter onset date in heavy box. Count forwards and backwards to c	calculate the probable exposure and communicable periods. Ask
about exposures between those dates. For Hepatitis B, exposure	· · · · · · · · · · · · · · · · · · ·
(onset=symptoms or, in the absence of symptoms, first positive lab	
about 60 days after onset of symptoms for most adults and indefini	itely for carriers.
	EXPOSURE PERIOD COMMUNICABLE
6 months 3 months	6 weeks 60 days
Time from onset: prior to onset prior to onset	prior to onset ONSET after onset
<del></del>	
calendar dates:	
Items in italics are interviewer instructions; items in bold indicate so	cript prompts:
POSSIBLE SOURCE/S) OF INFECT	TION DURING EXPOSURE PERIOD
First, I would like to ask you a few questions about exposures before the onset of illness. I will need to ask you questions ab	out various items, including social contacts, sexual contacts,
tattoos, piercings, and potential drug use. (Remind patient of di	_
In the 6 months to 6 weeks before your onset of illness	-
Yes No Unk	Yes No Unk
Were you: A contact of a person with	Did you: Receive a tattoo?
Hepatitis B?	If YES, where was it performed?
If YES, type of contact:	Commercial/Parlor
Sexual Needle	☐ Correctional facility ☐ Self
Household (non-sexual)	Other:
Other:	Receive any body piercing (other than ear)?
☐ ☐Diabetic?	If YES, where was it performed?
Diabetes Diagnosis Date:	☐ Commercial/Parlor
If YES, (check all the apply)	Correctional Facility
Use a blood glucose monitor Share a blood glucose monitor	☐ Self ☐ Other:
☐ Inject Insulin	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Share syringes or needles	☐ ☐ ☐ Have any other surgery (other than oral)?
☐ ☐Did you: Undergo hemodialysis?	☐ ☐Were you: Hospitalized?
☐ ☐ ☐Have an accidental stick or puncture with a	If YES, name of Hospital:
needle or other object contaminated with blood?  Receive blood or blood products (transfusion)?	
If YES, when?	☐ ☐ ☐Incarcerated for longer than 24 hours?  If YES, what type of facility?
Receive any IV infusions or injections in the	Prison
outpatient setting?	Jail
☐ ☐ ☐Have other exposure to someone else's blood?	☐ Juvenile Facility
Specify:	☐ ☐Did you: Inject drugs not prescribed by a
☐ ☐Were you: Employed in a medical or dental field involving direct contact with human blood?	doctor?
If YES, frequency of direct blood contact:	Have any sexual contact?
Frequent (several times weekly)	If YES, number of Male sexual partners?
Infrequent	□0 □1 □2-5 □>5 □Unk
Employed as a public safety worker (fire,	If YES, number of Female sexual partners?
police, corrections) involving direct contact with human blood?	0 1 2-5 >5 Unk
If YES, frequency of direct contact:	During your lifetime, were you EVER:
Frequent (several times weekly)	☐ ☐ ☐Treated for sexually transmitted diseases?
☐ Infrequent	If YES, year of most recent treatment
	☐ ☐Incarcerated for longer than 6 months?
	If YES, year incarceration completed?
	For how many months?

ATIENT HISTORY- ACUTE HEPATITIS C ONLY INFECTION		NAME:
Enter onset date in heavy box. Count forwards and backwards to co		
about exposures between those dates. For Hepatitis C, exposure	•	•
onset=symptoms or, in the absence of symptoms, first positive lab	prior to or	riset). Patient is injectious until dearance of HCV.
	EXPOS	URE PERIOD COMMUNICABLE
6 months 3 months		2 weeks 60 days
Time from onset: prior to onset prior to onset		prior to onset ONSET after onset
calendar dates:		
ems in italics are interviewer instructions; items in bold indicate so	ript promp	ots:
POSSIBLE SOURCE(S) OF INFECT	ION DURI	ING EXPOSURE PERIOD
irst, I would like to ask you a few questions about exposures		
efore your onset of illness. I will need to ask you questions al	bout vario	ous items, including social contacts, sexual
contacts, tattoos, piercings, and potential drug use. (Remind pa	atient of d	ate range collected from timeline.)
n the 6 months to 2 weeks before your onset of illness: 'es No Unk	Yes No	Unk
☐ ☐Were you: A contact of a person with		
Hepatitis C?		If YES, where was it performed?
If YES, type of contact: ☐ Sexual		Commercial/Parlor Correctional facility
Needle		Self
☐ Household (non-sexual)		☐ Other:
Other:		, ,, ,,
Diabetic?		If YES, where was it performed?
iabetes Diagnosis Date:		Commercial/Parlor
If YES, (check all the apply)		☐ Correctional Facility ☐ Self
☐ Use a blood glucose monitor ☐ Share a blood glucose monitor		Other:
☐ Inject Insulin		Did you: Have dental work or oral surgery?
Share syringes or needles		Have any other surgery (other than oral)?
☐ ☐Did you: Undergo hemodialysis?		Were you: Hospitalized?
Have an accidental stick or puncture with a		If YES, name of Hospital:
needle or other object contaminated with blood?  Receive blood or blood products (transfusion)?	HH	A resident of a long-term care facility?Incarcerated for longer than 24 hours?
If YES, when? / /		If YES, what type of facility?
Receive any IV infusions or injections in the		Prison
outpatient setting?		Jail
☐ ☐Have other exposure to someone else's blood?		Juvenile Facility
Specify:		Did you: Inject drugs not prescribed by a doctor?
field involving direct contact with human blood?		Use street drugs but not inject?
If YES, frequency of direct blood contact:		Have any sexual contact?
Frequent (several times weekly)		If YES, number of Male sexual partners?
□ Infrequent		0 1 2-5 >5 Unk
Employed as a public safety worker (fire,		If YES, number of Female sexual partners?
police, corrections) involving direct contact with human blood?		0 1 2-5 >5 Unk
If YES, frequency of direct contact:		During your lifetime, were you EVER:
Frequent (several times weekly)		Treated for sexually transmitted diseases?
☐ Infrequent		If YES, year of most recent treatment:
		If YES, year incarceration completed? For how many months?

	CONTACT	MANAGEMENT
	·	script prompts: I would like you to think about the risk factors we
		d, sexual, needle sharing, tattoo equipment sharing, and others refore your illness onset (onset=symptoms or, in the absence of
	nptoms, first positive lab prior to onset)? (Remind patient of de	
	ormation will be kept confidential.	,
CC	NTACTS:	CONTACT FOLLOW-UP: (to be completed after interview)
_	Name	4 November 1 / /
1.	Name:  Gender: ☐ Female ☐ Male Age:	Name: Date of 1st attempt: //  Date of 2nd attempt: / / Date of interview: / /
	Relation to case: (check all that apply)	Reason not interviewed: Unable to contact Refused
	☐ Household ☐ Sexual ☐ Needle sharing	Date of birth: _ / _ / _ Occupation:
	Tattoo equipment sharing	Check all that apply:
	Other, specify:	Symptomatic, onset date:// Asymptomatic
	Date of last exposure to contact://	☐ Tested positive ☐ Tested negative ☐ Not tested
	Address: State:	☐ Vaccinated ☐ Not vaccinated
	Phone number:	Education provided: Yes None, reason:
_		
2.	Name:  Gender: Female Male Age:	Name: Date of 1st attempt://
	Gender: Female Male Age:	Date of 2nd attempt:// Date of interview:/ _/_
	Relation to case: (check all that apply)	Reason not interviewed: Unable to contact Refused
	☐ Household ☐ Sexual ☐ Needle sharing ☐ Tattoo equipment sharing	Date of birth: / / Occupation:
	Other, specify:	Check all that apply:
	Date of last exposure to contact://	□ Symptomatic, onset date:/_
	Address: State:	☐ Vaccinated ☐ Not vaccinated
	Phone number:	Education provided: Yes None, reason:
_		
3.	Name:	3. Name: Date of 1st attempt: _ / _ / _ Date of 2nd attempt: _ / _ / _ Date of interview: _ / _ /
	Relation to case: (check all that apply)	Reason not interviewed: Unable to contact Refused
	☐ Household ☐ Sexual ☐ Needle sharing	Date of birth: _ / _ / _ Occupation:
	Tattoo equipment sharing	Check all that apply:
	Other, specify:	Symptomatic, onset date:// Asymptomatic
	Date of last exposure to contact://	☐ Tested positive ☐ Tested negative ☐ Not tested
	Address: State:	☐ Vaccinated ☐ Not vaccinated
	Phone number:	Education provided: Yes None, reason:
4.	Name:	4. Name: Date of 1st attempt: / /
	Gender: ☐ Female ☐ Male Age:	Date of 2nd attempt:// Date of interview:/_/_
	Relation to case: (check all that apply)	Reason not interviewed: Unable to contact Refused
	☐ Household ☐ Sexual ☐ Needle sharing	Date of birth:// Occupation:
	☐ Tattoo equipment sharing	Check all that apply:
	Other, specify:	Symptomatic, onset date:/ Asymptomatic
	Date of last exposure to contact://	☐ Tested positive ☐ Tested negative ☐ Not tested
	Address: State: Phone number:	□ Vaccinated    □ Not vaccinated  Education provided:    □ Yes    □ None, reason:
	Priorie number.	Education provided. Tes Tivone, reason:
		As a reminder, your information will be kept confidential.

114

		E	DUCATION AND PR	EVENTION MEASURES	
res	No	N/A  Did patient complete 3-s  If YES, Vaccine Type	Control of the Contro	ine series? ProvidenPhone	Verified □ Yes □ No
		9	11		Yes No
		If NO, Hepatitis B vaccin Yes, recommended No, specify reason:		1?	
		Hepatitis A vaccination r	ecommended?		
		If YES, refer patient to	perinatal coordinat	tor (see public health action list below).	
		If YES, Mother's name:	Commence of the Party of the Pa	s B acquired as a result of perinatal trans	mission?
			products, organs, o	r tissue? (including ova and semen)	
		Case education provided	d on? (Check all that	apply)	
		Not donating blood p Measures to avoid to	CONTRACTOR OF THE PROPERTY OF	tissue while infected? (including ova and	semen
		Avoidance of liver to		ylenol) w-up on any future pregnancies	
		For healthcare works	ers, counseling on sa	afety and transmission	
		Possibility of chronic  Other education provider		status (i.e., ongoing infection)	
		If YES, specify:	00.05		
		ल		AND 100000000	15.
Ch	-11	that and a	PUBLIC HE	ALTH ACTIONS	
	Proph	that apply) ylaxis (HBIG) of appropriate contac mber recommended prophylaxis:	cts recommended	Contact management follow-up con	npleted
		nation of appropriate contacts recorn or recommended vaccination:		Pregnant patient referred to Perinal Estimated Date of Delivery: Perinatal Case Number:	
ı.	1401				
<u>п</u>	1401		NOTES &	COMMENTS	
□¹	Null		NOTES &	COMMENTS	
<u>п</u>	1401		NOTES &	COMMENTS	
<u>п</u>	1401		NOTES &	COMMENTS	
□''			NOTES &	COMMENTS	
			NOTES &	COMMENTS	
			NOTES &	COMMENTS	
^			NOTES &	COMMENTS	
			NOTES &	COMMENTS	

# **Provider Records Request Letter**

Name of Provide  Address  Your Phone Number and Your Fax Number: Your Lenail:  Name of Provide  Address  City, IN Zip  Today's Date  The Health Department has been notified by your lab of a positive hepatitis test for the following patient:  Patient:  Date of Lab(s):  Late of Lab(s):  HBY  Hepatitis B surface antigen (HBs Ag)    [gM anti-HBc)   [gM antibody to hepatitis B core antigen (IgM anti-HBc)   Other (specify):  HCV  HCV antigen (HCV Ag)   Other (specify):  HCV antigen (HCV Ag)   Other (specify):  Acute hepatitis B and cute hepatitis C are diseases that are reportable under the Tennessee Department of Health Notifiable Disease List as defined by CDC.  Remessee Provider Reportable Diseases, 2017: https://apps.health.msov/Reportable/Diseases, 2017: https://apps.health.msov/Reportable/Diseases, 2017: https://apps.health.msov/Reportable/Diseases, 2017: https://apps.health.msov/Reportable/Diseases, 2017: https://apps.health.msov/Reportable/Diseases, 2017: https://apps.health.msov/Reportable/Diseases Common/2017 List For Laboratories.pdf  We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patienthave a history of Hepatisis D of Hepatisis C7 (tick all that apply)   Yes, Hepatitis B, Ifso, chronic or acute (specify):   No.  What is the pregnancy status on this individual?   Pregnant: Estimated Due Date:   Morth Pregnant: Estimated Due Date:   Morth Pregnant: Estimated Due Date:   Clinical Symptoms     Hospital History and Physical (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Clinical Symptoms     Hospital History and Physical (if applicable)   Clinical Symptoms	Your Health Department Address: Your Name: Your Phone Number and Your Fax Number: Your Email: Name of Provider Address
Name of Provider Address City, TN Zip Today's Date The Health Department has been notified by your lab of a positive hepatitis test for the following patient:  Patient: Date of Lab(s):  Test result(s) received (tick all that apply):  HBV	Your Phone Number and Your Fax Number: Your Email: Name of Provider Address
Address City, TN Zip Today's Date  The Health Department has been notified by your lab of a positive hepatitis test for the following patient:  Patient: DOB: Date of Lab(s):  Test result(s) received (tick all that apply):  HBV Hepatitis B surface antigen (HBsAg)   IgM antibody to hepatitis B core antigen (IgM anti-HBc) Other (specify):  HCV HCV antibody (anti-HCV)   Hepatitis C RNA (qualitative, quantitative, or genotype)   HCV antigen (HCV Ag) Other (specify):  Acute hepatitis B and acute hepatitis C are diseases that are reportable under the Tennessee Department of Health Notifiable Disease List as defined by CDC. Ennessee Provider Reportable Diseases, 2017: https://apps.health.tm.sov/ReportableDiseases/Common/2017 List For Healthcare Providers pdf Tennessee Laboratory Reportable Diseases, 2017: https://apps.health.tm.sov/ReportableDiseases/Common/2017 List For Laboratories.pdf  We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply)   Yes, Hepatitis B; it so, chronic or acute (specify):   No.   No.   No.   Pregnant    Additionally, we are requesting the following medical record(s) and/or lab report(s) (tick all that apply):   Hospital History and Physical (if applicable)   Office Visit or ER Notes   Patient Demographics   Christial Symptoms   Other Lab Reports:   Patient Demographics   Patient Demographics   Patient Demographics   Patient Demographics   Christial Symptoms   Other Lab Reports (as indicated)   Other:   Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)   Other	Address
The Health Department has been notified by your lab of a positive hepatitis test for the following patient:    Date of Lab(s)	
Patient: DOB:	
Date of Lab(s):  Test result(s) received (tick all that apply):  HBV	The Health Department has been notified by your lab of a positive hepatitis test for the following patient:
Test result(s) received (tick all that apply):  HEV	
HEV   Hepatitis B surface antigen (HBs Ag)   IgM antibody to hepatitis B core antigen (IgM anti-HBc)    HCV   HCV antibody (anti-HCV)   Hepatitis C RNA (qualitative, quantitative, or genotype)   HCV antigen (HCV Ag)    Other (specify):	Date of Lab(s):
Hepatitis B surface antigen (HBsAg)   IgM antibody to hepatitis B core antigen (IgM anti-HBc)   Other (specify):	
HCV HCV antibody (anti-HCV) Hepatitis C RNA (qualitative, quantitative, or genotype) HCV antigen (HCV Ag) HCV anti	☐ Hepatitis B surface antigen (HBsAg)
HcV antibody (anti-HcV)	
HcV antibody (anti-HcV)	• HCV
Gother (specify):	☐ HCV antibody (anti-HCV)
Acute hepatitis B and acute hepatitis C are diseases that are reportable under the Tennessee Department of Health Notifiable Disease List as defined by CDC.  Jennessee Provider Reportable Diseases, 2017:  https://apps.health.tn.gov/ReportableDiseases/Common/2017 List For Healthcare Providers.pdf  Tennessee Laboratory Reportable Diseases, 2017:  https://apps.health.tn.gov/ReportableDiseases/Common/2017 List For Laboratories.pdf  We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patienthave a history of Hepatitis B or Hepatitis C? (tick all that apply)    Yes, Hepatitis B; If so, chronic or acute (specify):     Yes, Hepatitis C; If so, chronic or acute (specify):     No.  What is the pregnancy status on this individual?     Pregnant; Estimated Due Date:     Not Pregnant  Additionally, we are requesting the following medical record(s) and/or lab report(s) (tick all that apply):     Hospital History and Physical (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Office Visit or ER Notes     Lab Reports:   Patient Demographics     Liver Function Tests (AST, ALT)   Reason for Testing     Clinical Symptoms     Clinical Sympto	
Notifiable Disease List as defined by CDC.  [ennessee Provider Reportable Diseases, 2017: https://apps.health.m.gov/ReportableDiseases, 2017: https://apps.health.m.gov/ReportableDiseases Common/2017 List For Laboratories.pdf  We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply):	☐ Other (specify):
Cennessee Provider Reportable Diseases, 2017: https://apps.health.tn.gov/Reportable/Diseases.Common/2017 List For Healthcare Providers.pdf   Tennessee Laboratory Reportable Diseases, 2017: https://apps.health.tn.gov/Reportable/Diseases/Common/2017 List For Laboratories.pdf   We are requesting further information in order to define this illness as either acute, chronic, or not a case.   Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply)   Yes, Hepatitis B; If so, chronic or acute (specify):	Acute hepatitis B and acute hepatitis C are diseases that are reportable under the Tennessee Department of Health
https://apps health.tn.gov/ReportableDiseases, 2017: https://apps health.tn.gov/ReportableDiseases, 2017: https://apps health.tn.gov/ReportableDiseases.2017: https://apps health.tn.gov/ReportableDiseases.Common/2017 List For Laboratories.pdf  We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply)    Yes, Hepatitis B; If so, chronic or acute (specify):	
Tennessee Laboratory Reportable Diseases, 2017: https://apps.health.tn.gov/ReportableDiseases.Common/2017 List For Laboratories.pdf  We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply)    Yes, Hepatitis B; If so, chronic or acute (specify):   Yes, Hepatitis C; If so, chronic or acute (specify):   No.  What is the pregnancy status on this individual?   Pregnant; Estimated Due Date:   Not Pregnant; Estimated Due Date:   Not Pregnant   Hospital History and Physical (if applicable)   Clinical Symptoms   Hospital Discharge Summary (if applicable)   Office Visit or ER Notes   Patient Demographics   Lab Reports:   Patient Demographics   Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)   Other:   If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	
We are requesting further information in order to define this illness as either acute, chronic, or not a case.  Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply)    Yes, Hepatitis B; If so, chronic or acute (specify):     Yes, Hepatitis C; If so, chronic or acute (specify):     No.  What is the pregnancy status on this individual?   Pregnant; Estimated Due Date:     Not Pregnant  Additionally, we are requesting the following medical record(s) and/or lab report(s) (tick all that apply):     Hospital History and Physical (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Office Visit or ER Notes     Lab Reports:   Patient Demographics     Liver Function Tests (AST, ALT)   Reason for Testing     Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)     Other:     If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	Tennessee Laboratory Reportable Diseases, 2017:
Does this patient have a history of Hepatitis B or Hepatitis C? (tick all that apply)    Yes, Hepatitis B; If so, chronic or acute (specify):   Yes, Hepatitis C; If so, chronic or acute (specify):   No.    What is the pregnancy status on this individual?   Pregnant; Estimated Due Date:   Not Pregnant   Not Pregnant   Additionally, we are requesting the following medical record(s) and/or lab report(s) (tick all that apply):   Hospital History and Physical (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Office Visit or ER Notes     Lab Reports:   Patient Demographics     Liver Function Tests (AST, ALT)   Reason for Testing     Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)     Other:     If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please emailor fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.	https://apps.health.tn.gov/ReportableDiseases/Common/2017 List For Laboratories.pdf
Yes, Hepatitis B; If so, chronic or acute (specify):   Yes, Hepatitis C; If so, chronic or acute (specify):   No.    What is the pregnancy status on this individual?   Pregnant; Estimated Due Date:   Not Pregnant	We are requesting further information in order to define this illness as either acute, chronic, or not a case.
Yes, Hepatitis B; If so, chronic or acute (specify):   Yes, Hepatitis C; If so, chronic or acute (specify):   No.    What is the pregnancy status on this individual?   Pregnant; Estimated Due Date:   Not Pregnant	Does this patient have a history of Henatitis B or Henatitis C? (tick all that apply)
What is the pregnancy status on this individual?    Pregnant; Estimated Due Date:   Not Pregnant	☐ Yes, Hepatitis B; If so, chronic or acute (specify):
What is the pregnancy status on this individual?    Pregnant	
Pregnant   Restimated Due Date:	☐ NO.
Additionally, we are requesting the following medical record(s) and/or lab report(s) (tick all that apply):    Hospital History and Physical (if applicable)   Clinical Symptoms   Hospital Discharge Summary (if applicable)   Office Visit or ER Notes   Patient Demographics   Liver Function Tests (AST, ALT)   Reason for Testing   Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)   Other:   If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.	
Hospital History and Physical (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Office Visit or ER Notes     Lab Reports:   Patient Demographics     Liver Function Tests (AST, ALT)   Reason for Testing     Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)     Other:     If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	
Hospital History and Physical (if applicable)   Clinical Symptoms     Hospital Discharge Summary (if applicable)   Office Visit or ER Notes     Lab Reports:   Patient Demographics     Liver Function Tests (AST, ALT)   Reason for Testing     Hepatitis Panels (entire panel)   Other Lab Reports (as indicated)     Other:     If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	_ •
Lab Reports: Patient Demographics Liver Function Tests (AST, ALT) Reason for Testing Hepatitis Panels (entire panel) Other Lab Reports (as indicated) Other:  If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	Additionally, we are requesting the following medical record(s) and/or lab report(s) (tick all that apply):  ☐ Hospital History and Physical (if applicable) ☐ Clinical Symptoms
Lab Reports: Patient Demographics Liver Function Tests (AST, ALT) Reason for Testing Hepatitis Panels (entire panel) Other Lab Reports (as indicated) Other:  If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	☐ Hospital Discharge Summary (if applicable) ☐ Office Visit or ER Notes
Hepatitis Panels (entire panel) Other Lab Reports (as indicated) Other:	☐ Lab Reports: ☐ Patient Demographics
Other:	
fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	
fax this form and the requested information to the email or fax number at the top of this page. Thank you very much for your assistance in completing this case investigation.  Sincerely,	If the patient has acute hepatitis, we will contact the patient to obtain information about risk factors. Please email or
	fax this form and the requested information to the email or fax number at the top of this page. Thank you very
Vour Name / Title	Sincerely,
	Your Name / Title

# **Provider Records Request Letter for HBV Positive Females of Reproductive Age**

	TN Department of Health
	Your Health Department Address:
***	Your Name:
101	or Phone Number and Your Fax Number: Your Email:
Name of Provider	
Address City, TN Zip	Today's Date
City, 111 Zip	Today a Daic
The Health Department has been notified woman of reproductive age (11-50) with	d by your lab of a positive test for Hepatitis B surface antigen (HBsAg) on a a known history of hepatitis B.
	lows up with each positive HBsAg lab to determine the patient's pregnancy is required and positive labs are reportable under the Tennessee Departmen ned by CDC.
Tennessee Provider Reportable Diseases.	2017:
	eases/Common/2017 List For Healthcare Providers.pdf
Tennessee Laboratory Reportable Diseas	
https://apps.nealm.tn.gov/ReportableDisc	eases/Common/2017 List For Laboratories.pdf
	eases Common 2017 List For Laboratories pdf  in order to establish pregnancy status of your patient.
We are requesting further information	in order to establish pregnancy status of your patient.
We are requesting further information  Patient:	in order to establish pregnancy status of your patient.
We are requesting further information	in order to establish pregnancy status of your patient.
We are requesting further information  Patient:  Date of Lab(s):  What is the pregnancy status on this indi	in order to establish pregnancy status of your patient.  DOB: vidual?
We are requesting further information  Patient:  Date of Lab(s):  What is the pregnancy status on this indi  Pregnant; Estimated Du	in order to establish pregnancy status of your patient.  DOB:
We are requesting further information  Patient:  Date of Lab(s):  What is the pregnancy status on this indi	in order to establish pregnancy status of your patient.  DOB: vidual?
We are requesting further information  Patient: Date of Lab(s): What is the pregnancy status on this indi Pregnant; Estimated Du Not Pregnant	vidual?
We are requesting further information  Patient: Date of Lab(s):  What is the pregnancy status on this indi Pregnant; Estimated Du Not Pregnant  If the patient is determined to be pregnan	vidual?  ue Date:  ut, we will forward this information to the public health mursing coordinato:
We are requesting further information  Patient: Date of Lab(s):  What is the pregnancy status on this indi Pregnant; Estimated Du Not Pregnant  If the patient is determined to be pregnan	vidual?
We are requesting further information  Patient:  Date of Lab(s):  What is the pregnancy status on this indi  Pregnant; Estimated Du  Not Pregnant  If the patient is determined to be pregnan in your region for case management, and	vidual?  ue Date:  ut, we will forward this information to the public health mursing coordinato:
We are requesting further information  Patient: Date of Lab(s): What is the pregnancy status on this indi Pregnant; Estimated Du Not Pregnant  If the patient is determined to be pregnan in your region for case management, and  Please email or fax this completed form	vidual? ue Date: tt, we will forward this information to the public health mursing coordinators of the email or fax number at the top of this page.
We are requesting further information  Patient:  Date of Lab(s):  What is the pregnancy status on this indi  Pregnant; Estimated Du  Not Pregnant  If the patient is determined to be pregnan in your region for case management, and	vidual? ue Date: tt, we will forward this information to the public health mursing coordinators of the email or fax number at the top of this page.
We are requesting further information  Patient: Date of Lab(s): Pregnancy status on this indiplement in the pregnant; Estimated Dule of Not Pregnant  If the patient is determined to be pregnant in your region for case management, and Please email or fax this completed form  Thank you very much for your assistance.	vidual? ue Date: tt, we will forward this information to the public health mursing coordinators of the may reach out to you for additional information.  In to the email or fax number at the top of this page.
We are requesting further information  Patient: Date of Lab(s): What is the pregnancy status on this indi Pregnant; Estimated Du Not Pregnant  If the patient is determined to be pregnan in your region for case management, and  Please email or fax this completed form	vidual? ue Date: tt, we will forward this information to the public health mursing coordinators of the may reach out to you for additional information.  In to the email or fax number at the top of this page.
We are requesting further information  Patient: Date of Lab(s): What is the pregnancy status on this indicent in the pregnant; Estimated During Not Pregnant  If the patient is determined to be pregnant in your region for case management, and  Please email or fax this completed form  Thank you very much for your assistance.	vidual? ue Date: tt, we will forward this information to the public health mursing coordinators of the may reach out to you for additional information.  In to the email or fax number at the top of this page.
We are requesting further information  Patient: Date of Lab(s): Pregnancy status on this indiplement in the pregnant; Estimated Dule of Not Pregnant  If the patient is determined to be pregnant in your region for case management, and Please email or fax this completed form  Thank you very much for your assistance.	vidual? ue Date: tt, we will forward this information to the public health mursing coordinators of the may reach out to you for additional information.  In to the email or fax number at the top of this page.

### Letter for Contacts to Acute HBV or Acute HCV Cases



Your Health Department Address
Your Name:
Your Phone Number and Your Fax Number:
Your Email:

Name of Person Address City, TN Zip

Today's Date

This letter is to notify you of either a possible exposure to hepatitis or infection with hepatitis virus. Hepatitis virus infects the liver and if not managed properly, can lead to other medical complications such as liver failure, liver cancer, or even death. Infected persons can develop long term infections and unknowingly spread it to others.

Early signs and symptoms of infection include: abdominal pain, fever, fatigue, loss of appetite, nausea, vomiting, yellowing of skin or eyes (jaundice), dark urine, abdominal pain, joint pain and clay-colored stools. However, some infected persons have **NO symptoms**.

There are three common types of hepatitis, A, B, and C. Hepatitis B virus can be spread by sexual contact through exposure to infected body fluids or blood. Examples include exposures to needles or lancets, receiving tattoos or body-piercings from poorly sterilized equipment, and sharing items such as razors or toothbrushes. It also can be spread from infected mothers to their newborns during the birth process and to unvaccinated household members.

There is an effective vaccine to prevent Hepatitis B infection. If there are any unvaccinated or incompletely vaccinated persons living in your household, we strongly recommended that they report to the local health department or their primary care physician for testing and vaccination.

II I can	be of help	m answering	questions	for you, please	call n	ny office at	<del></del>
Sincere	ly,						

Your Name/ Title

### **Public Health Authority Letter**



Your Health Department Address: Your Name: Your Phone Number and Your Fax Number: Your Email:

Today's Date

#### To Whom It May Concern:

This letter is to address any questions or concerns that may arise regarding public health investigation and surveillance activities and rules as they relate to patient privacy protection. The Communicable and Environmental Diseases and Emergency Preparedness section (CEDEP) of the Tennessee Department of Health (TDH) conducts surveillance for a number of communicable diseases and other public health threats in its capacity as a public health authority as defined by the Health Insurance Portability and Accountability Act (HIPAA), Standards for Privacy of Individually Identifiable Health Information; Final Rule (Privacy Rule) [45 CFR §164.501].

The authority to conduct surveillance, which may include patient or provider interviews, and examination of isolates and/or medical recordreviews, comes from the Communicable Diseases Rules of the Tennessee Code Annotated. Under the law the Commissioner of Health delegates authority to the Chief Medical Officer to "make sanitary inspections and inquiries respecting the causes of diseases..." (TCA 68-1-104[2]). The Rules state that the health officer or designee shall "establish a complete epidemiological investigation to include (but not limited to) review of appropriate medical and laboratory records, interviews of affected persons and controls, and record the findings on a communicable disease field report." "Medical records shall be made available when requested, for inspection and copying of, by a duly authorized representative of the Department while in the course of investigating a reportable disease under these regulations." (1200-14-1-15).

Pursuant to 45 CFR §164.512(b) of the Privacy Rule, covered entities such as hospitals may disclose, without individual authorization, protected health information to public health authorities "...authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions...".

Thank you for your continued cooperation in these surveillance efforts, and contributions to our shared mission of protecting the health of our population. Please let me know if you have any questions.

Sincerely,

Your Name / Title

### **VA Medical Record Request**



### COMMUNICABLE AND ENVIRONMENTAL DISEASES

AND EMERGENCY PREPAREDNESS

4º FLOOR, ANDREW JOHNSON TOWER

710 JAMES ROBERTSON PARKWAY
NASHVILLE, TENNESSEE 37243

Date: To: Veteran's Administration at: Attention: Release of Information Office
Re: (Veteran's Full Name): Date of Birth: (mm/dd/yyx): Social Security Number (if known):
The Tennessee Department of Health is conducting a public health disease investigation of the above named patient, under our authority to "make sanitary inspections and inquiries respecting the causes of diseases" (TCA,68-l-) 104(21). The Rules state that the health officer or designee shall "establish a complete epidemiological investigation to include (but not limited to) review of appropriate medical and laboratory records, [and] interviews of affected persons and controls." "Medical records shall be made available when requested, for inspection and copying of, by a duly authorized representative of the Department while in the course of investigating a reportable disease under these regulations." (1200-14-1-15). Pursuant to 45 CFR §164.512(b) of the Privacy Rule, covered entities such as hospitals may disclose, without individual authorization, protected health information to public health authorities "authorized by law to collect or receive such information for the purpose of preventing or controlling disease, injury, or disability, including, but not limited to, the reporting of disease, injury, vital events such as birth or death, and the conduct of public health surveillance, public health investigations, and public health interventions".  I am requesting this information under the authority delegated to me by the Tennessee Department of Health as outlined in the attached letter. De-identified information will not suffice for this purpose.  Specific information requested (types of records):
Applicable dates: (mm/dd/yyyy, through mm/dd/yyyy):
Please send these records to me at:
Thank you for your cooperation.
Sincerely,
(Name, position, contact information)



JOHN J. CREYZCHNOL MO, MPH

BILL FASLAM

March 8, 2016



Re: Release of VA records for TDH investigations of notifiable diseases

Dear.

Pursuant to the duties of the Tennessee Department of Health required by the Tennessee Code Annotated 68-1-104[2], to investigate reportable diseases, I specifically authorize and designate any TDH employee actively involved in the investigation of these diseases or conditions to request and obtain records in the custody of the Department of Veterans Affairs pursuant to 5 U.S.C. 552(b)(7).

This authorization extends to any TDH medical care provider, discuse investigator, epidemialogist, or staff performing their detics as defined by the Tennessee Code Annotated 68-1-104[2], and includes patient files, records, reports and demographic information in the possession of the Department of Veterars Affairs.

A photocopy of this designation may accompany any such written request for records as necessitated by 5 U.S.C. 552(b)(7). It is our expectation that requests for information will be responded to expeditionally to aid in urgent public health investigations, and prevent unnecessary morbidity and evortality.

Sincerely.

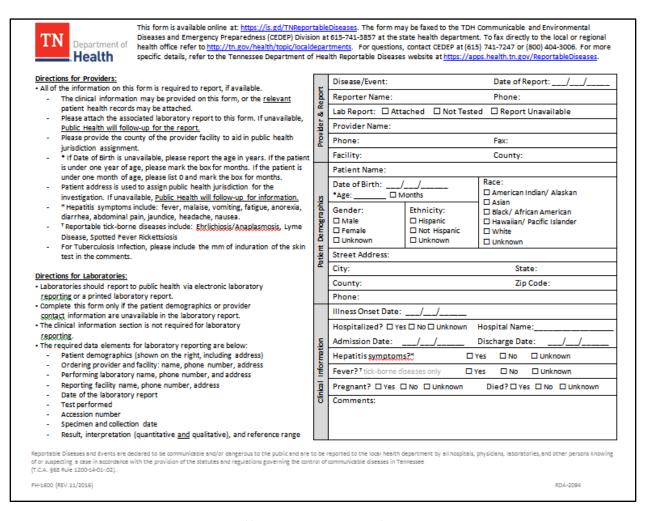
John J. Dreyzelmer, MD, MPH, PACOEM

Commissioner

JJD/TJ/tls

5º Floor, Andrew Johnson Tower 710 James Robertson Parkway \* Nashville, TN 3\*243 (615) 741-3111 \* <u>www.tn.gowilasahh</u>

#### **PH-1600 Form**



PH-1600 REDCap Reporting Link: <a href="https://redcap.health.tn.gov/">https://redcap.health.tn.gov/</a>

# **Accurint Record Search Request Form**

Staff Name/Title:	Phone (xxx-xxx-xxx):	Email Address:	Office Address:
			4
Prism Profile ID # (or Patient Name, DOB, etc.) <sup>1</sup> :	Patient Type:	Specific locating information needed <sup>2</sup> :	Reason for request/ brief description of attempts to contact patient <sup>3</sup> :
	☐ 900 case/ contact ☐ Early 700 case/ contact ☐ Pregnant case ☐ Pregnant contact ☐ Congenital case ☐ Congenital contact		
Supervisor:	Supervisor Phone:	Supervisor Email:	Notes:

Please send any Accurint requests to Michael Rickles securely at <a href="michael.rickles@tn.gov">michael.rickles@tn.gov</a>

Appendix C:
Adding Providers/Organizations and NBS and Lab Translator

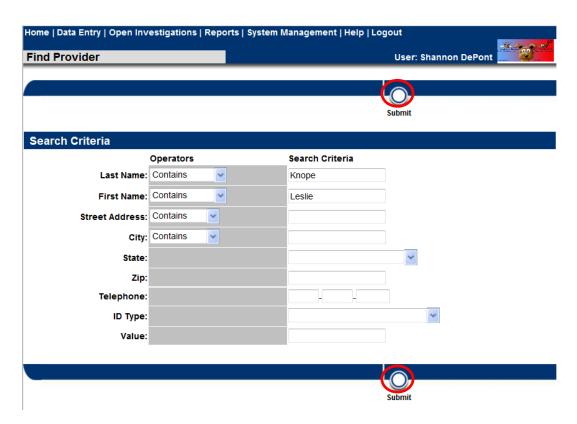
### **Data Entry: Adding Providers**

Note a Provider within NBS is both a Physician (Medical Provider) and an Investigator (i.e. NBS Investigator). Please enter them as follows:

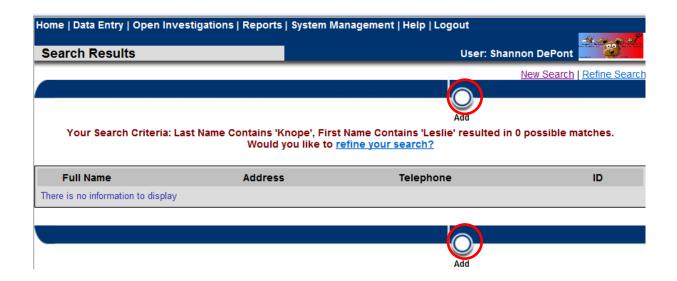
1. From NBS Home page choose Data Entry then Provider:



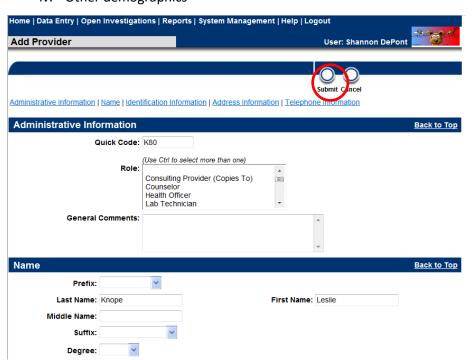
2. Under Search Criteria search for the Provider using their name followed by Submit button:



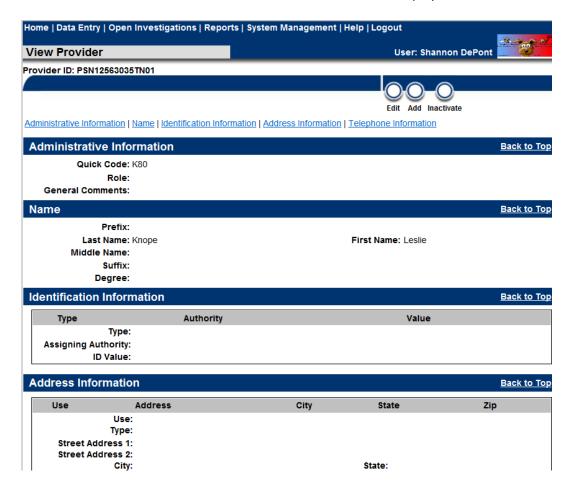
3. The search will return no results and the option to Add the Provider:



- 4. Fill in corresponding information then Submit
  - a. NBS Investigator
    - i. Quick Code
    - ii. First and Last name
  - b. Physician (Medical Professional):
    - i. First and Last name
    - ii. Address
    - iii. Phone number
    - iv. Other demographics



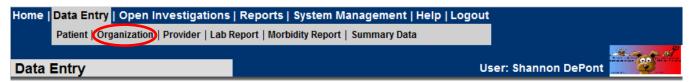
5. Once new Provider has been submitted the below screen will display:



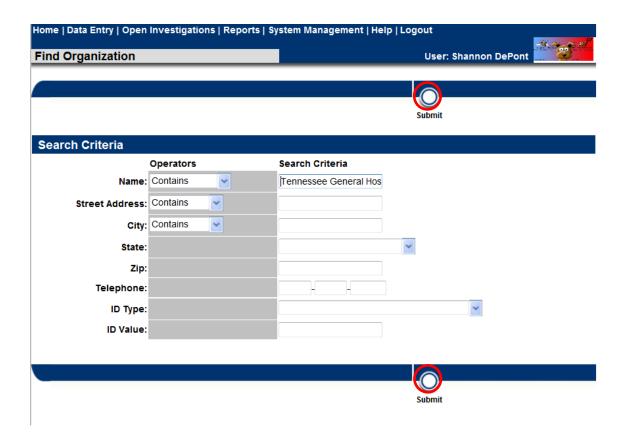
### **Data Entry: Adding Organizations**

Note an Organization within NBS is both Laboratory and a Medical Facility. Please enter them as follows:

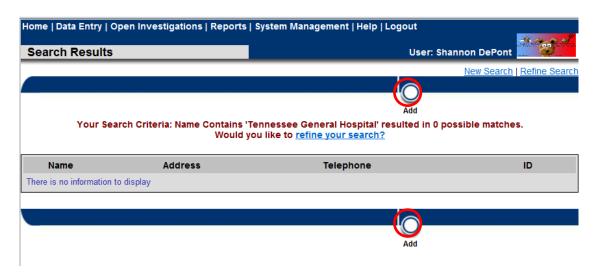
1. From NBS Home page choose Data Entry then Organization:



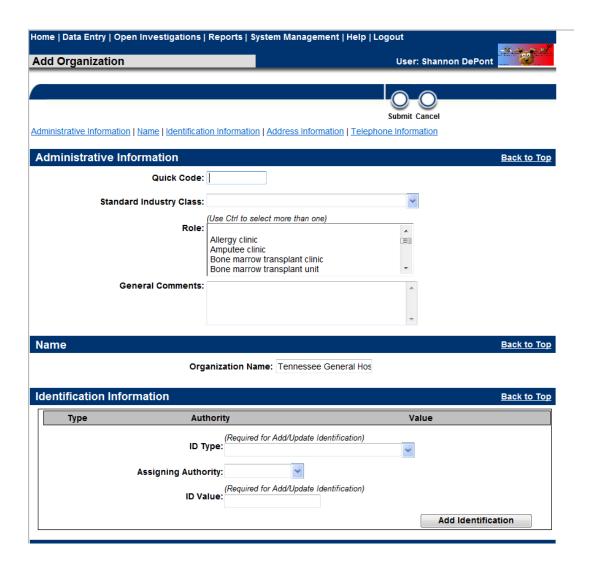
2. Under Search Criteria search for the Organization using the facilities name or address followed by Submit button:



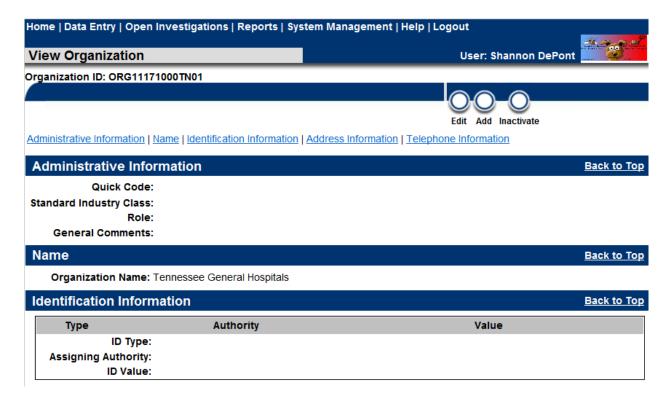
3. The search will return no results and the option to Add the Organization:



- 4. Fill in corresponding information then Submit
  - a. Laboratory
    - i. Quick Code
    - ii. Lab's name
    - iii. Address
    - iv. Phone number
  - b. Medical Facility:
    - i. Medical Facility's name
    - ii. Address
    - iii. Phone number



5. Once new Organization has been submitted the below screen will display:



# Data Entry: Lab Translator for Entering a Laboratory Report

On the	Ordered			
sheet	Test	Resulted Test	Where	How
Нер С				
HCV RNA	Hepatitis C virus,	Hepatitis C virus,		
Quant	RNA	RNA	Numeric Result	Write in number
*	Hepatitis C virus,	Hepatitis C virus,	T . D !!	
*HCV RNA Log	RNA	RNA	Text Result	Write 'HCV RNA Log'
HCV RNA, PCR, QN	Hepatitis C virus, RNA	Hepatitis C virus, RNA	Numeric Result	Write in number
QII	Hepatitis C virus,	Hepatitis C virus,	Numeric Result	Wille III Hamber
HCV PCR	RNA	RNA	Coded Result	Drop down 'Detected'
HCV RNA Viral	Hepatitis C virus,	Hepatitis C virus,		,
Load	RNA	RNA	Numeric Result	Write in number
HCV RNA,	Hepatitis C virus,	Hepatitis C virus,		Drop down 'Positive',
Qualitative	RNA	RNA	Coded Result	'Reactive' or 'Negative'
HCV NAT	Hepatitis C virus,	Hepatitis C virus,		Drop down 'Positive',
(Qualitative)	RNA	RNA	Coded Result	'Reactive' or 'Negative'
HCV NAT	Hepatitis C virus,	Hepatitis C virus,	N	And the transport of
(Quantitive)	RNA Hepatitis C Virus	RNA	Numeric Result	Write in number
HCV Genotype,	(HCV),	Hepatitis C Virus		
LiPA	Genotyping	(HCV), Genotyping	Text Result	Write '1b', '1a', '3a',
Hep C Ab >	Hepatitis C Virus	Hepatitis C virus		Drop down 'Positive' or
11.0	(HCV) Antibody	(HCV), Antibody	Coded Result	'Reactive'
ANTI-HCV				
(HEPATITIS C) >	Hepatitis C Virus	Hepatitis C virus		Drop down 'Positive' or
11.0	(HCV) Antibody	(HCV), Antibody	Coded Result	'Reactive'
Hepatitis C				
Antibody (HCV)	Hepatitis C Virus	Hepatitis C virus	Coded Besult	Drop down 'Positive' or 'Reactive'
IgG	(HCV) Antibody	(HCV), Antibody	Coded Result	
HCV EIA	Hepatitis C Virus (HCV) Antibody	Hepatitis C Virus (HCV), Antibody	Coded Result	Drop down 'Positive' or 'Reactive'
	Alanine	Alanine	Couca Negait	Redective
	Aminotransferase	Aminotransferase		
ALT (Liver Test)	(ALT/GPT/SGPT)	(ALT/GPT/SGPT)	Numeric Result	Write in number
	Aspartate	Aspartate		
	Aminotransferase	Aminotransferase		
AST (Liver Test)	(AST, SGOT, GOT)	(AST/ SGOT/ GOT )	Numeric Result	Write in number
				Drop down 'Positive',
HCV Ag	HCV Ag	HCV Ag	Coded Result	'Reactive' or 'Negative'

On the	Ordered	D 1/ 17 /		
sheet	Test	Resulted Test	Where	How
Нер В	I	I	ı	
Hepatitis B	Hepatitis B	Hepatitis B virus		Write in 'Confirmed' or
Surface Antigen	Surface Antigen	Surface Antigen	Text	drop down 'Positive' or
Confirmation	(HBsAg) Hepatitis B	(HBsAg) Hepatitis B virus	Result/Coded	'Reactive' Write in 'Confirmed' or
	Surface Antigen	Surface Antigen	Text	drop down 'Positive' or
HBsAg	(HBsAg)	(HBsAg)	Result/Coded	'Reactive'
Hepatitis B	(1123/18)	(1123/16)	nesary esaca	Nedelive .
Suface	Hepatitis B	Hepatitis B virus		Write in 'Confirmed' or
Antibody,	Surface Antibody	Surface Antibody	Text	drop down 'Positive' or
Qualitative	(HBSAb)	(HBSAb)	Result/Coded	'Reactive'
HBV NAT	Hepatitis B Virus,	Hepatitis B Virus,		Drop down 'Positive',
(Qualitative)	DNA	DNA	Coded Result	'Reactive' or 'Negative'
HBV NAT	Hepatitis B Virus,	Hepatitis B Virus,		
(Quantitive)	DNA	DNA	Numeric Result	Write in number
Hepatitis B				
Virus DNA PCR				Drop down 'Detected'
(Ultraquant)	Hepatitis B Virus,	Hepatitis B Virus,		(Ultraquant is still a coded
Interp.	DNA	DNA	Coded Result	qualitive-type result)
11007 0 -1 1	Haratilla BACA	Haradii Bara		Drop down 'Detected'
HBV Qnt by PCR (IU/mL)	Hepatitis B Virus, DNA	Hepatitis B Virus, DNA	Coded Result	(Ultraquant is still a coded
Hepatitis B	Hepatitis B Virus,	Hepatitis B Virus,	Coded Result	qualitive-type result)
DNA Log	DNA	DNA	Text Result	Write in 'Hep B DNA log'
Hepatitis B	Hepatitis B Virus,	Hepatitis B Virus,	rexerresure	Title III Hep 3 3 III Heb
DNA Quant	DNA	DNA	Numeric Result	Write in number
**Hepatitis B	Hepatitis B Virus,	Hepatitis B Virus,		
DNA Qual	DNA	DNA	Coded Result	Drop down 'Positive'
Hepatitis Be				
Antibody	Shred	Shred	N/A	N/A
Hepatitis Be	Hepatitis Be virus	Hepatitis B virus e		
Antigen	Antigen (HBeAg)	antigen	Coded Result	Drop down 'Reactive'
Hepatitis B	Hepatitis B virus	HEPATITIS B VIRUS	Carlad Danult	Drop down 'Positive' or
Core Ab	core antibody	CORE AB.IGM	Coded Result	'Regactive'
HBV DNA Viral Load	Hepatitis B Virus, DNA	Hepatitis B Virus, DNA	Numeric Result	Write in number
LUau	Alanine	DINA	ivuilleric Result	vviite iii iiuiiibei
	Aminotransferas	Alanine		
	e	Aminotransferase		
ALT (Liver Test)	(ALT/GPT/SGPT)	(ALT/GPT/SGPT)	Numeric Result	Write in number
,	Aspartate	,		
	Aminotransferas	Aspartate		
	e (AST, SGOT,	Aminotransferase		
AST (Liver Test)	GOT)	(AST/ SGOT/ GOT )	Numeric Result	Write in number

	Hepatitis B virus	HEPATITIS B VIRUS		Drop down 'Positive' or
IgM HBcAh	core antibody	CORF AB IGM	Coded Result	'Regactive'
Notes				
* Only enter HCV	RNA Log if HCV RNA			
provided with sa	me collection date.			
*When Q.A.ing H	IBV, DNA we would i			
(number) than a	qual (pos/confirmed			
You can skip ente	ering a qual as long a			
(dates must be tl	he same).			
*Nucleic Acid Tes	st (NAT)/Nucleic Acid			
(NAAT): A molec	ular technique that t			
of a virus or bact	erium by testing for			
DNA (for HBV)/vi	iral RNA (for HCV).			
be quantitative of	or qualitative. For HB			
PCR and DNA tes	sts. For HCV: NAT end			
and genotype tes	sts*			

For an electronic version of the Lab Translator, please email Shannon De Pont at <a href="mailto:shannon.depont@tn.gov">shannon.depont@tn.gov</a>

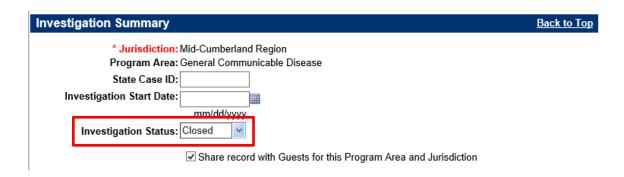
Appendix D: Viral Hepatitis Case Notifications Process The procedures for creating a notification are changing in 2017 (see below for a detailed process). Central Office will now have final notification approval for cases that are sent to the CDC. The region will create a notification when the investigation is completed and ready for review at Central Office. Central Office will review the investigation, and if complete, will approve the notification for the case to be sent to CDC.

Note, do not create notifications on:

- Patients who are not residents of Tennessee
- Investigations with a case status of Unknown or Not a Case

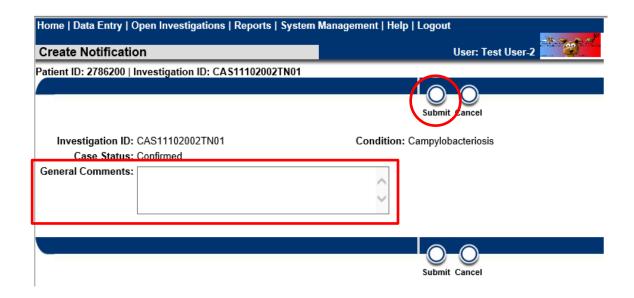
#### **Case Notification Process in NBS**

1. Complete the investigation and change the investigation status to Closed.

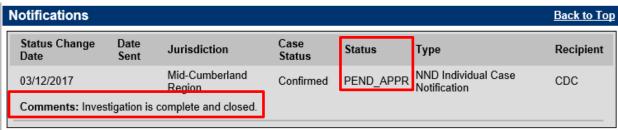


2. Click on Create Notification. In the Comments box, add any additional details for the receiving Central Office program. Click Submit to send the notification. Note, if you create the Notification before you are ready for Central Office review, leave the investigation Open.

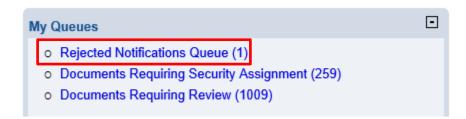


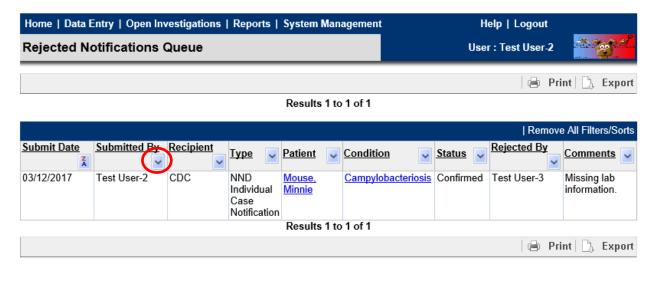


The notification status will now show as Pending Approval (PEND\_APPR) until the Central Office program has reviewed the investigation. Note, any comments entered when the notification was created will show.



- 4. If the notification is approved, the notification status will change to Approved. When the notification is in the process of being sent to CDC, the status will be Batch Processing. Once sent to CDC, the notification status will change to Completed, if there is no error.
- 5. If the notification is rejected, the investigation will be listed in the Rejected Notifications Queue. Check the queue regularly, filtering on your name as Submitted By, to identify any investigations to review. To filter, click on the down arrow below Submitted By. Uncheck Select All, and then check only your name. Click OK.



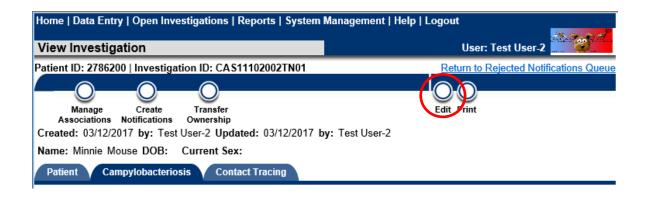


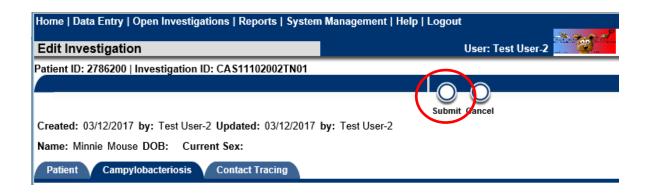


6. Note, the Comments field shows what needs revised for the investigation. Click on the hyperlink under Condition to go directly to the investigation to review. If you click on the patient name, you will be directed to the Summary tab for that patient, rather than the investigation. Clicking on the investigation will allow you to return to this list you just filtered.



7. Click Edit to make changes to the investigation. Click Submit when complete.





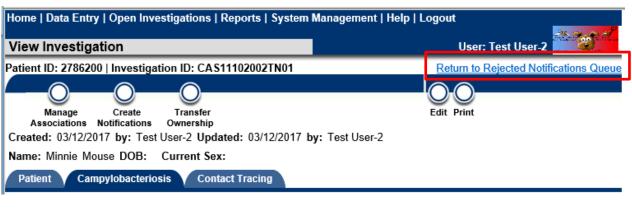
8. Send the notification to the Central Office again by clicking on Create Notification. Enter any comments in the comments box, and click Submit. The investigation will be returned to the Central Office to review again. The notification status will again show as Pending Approval. Any comments entered when the notification is resubmitted will show. All steps of the process will be logged in the Notification section of the investigation. Note, this section may be on different tabs for different conditions.

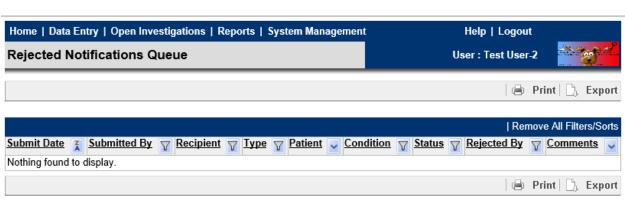




ю	tifications						Back to		
	Status Change Date	Date Sent	Jurisdiction	Case Status	Status	Туре	Recipien		
=	03/12/2017		Mid-Cumberland Region	Confirmed	PEND_APPR	NND Individual Case Notification	CDC		
	Comments: Lab d	lata have b	een entered. Investig	ation is update	d.				
	03/12/2017		Mid-Cumberland Region	Confirmed	REJECTED	NND Individual Case Notification	CDC		
	Comments: Missing lab information.								
	03/12/2017		Mid-Cumberland Region	Confirmed	PEND_APPR	NND Individual Case Notification	CDC		
	Comments: Investigation is complete and closed.								

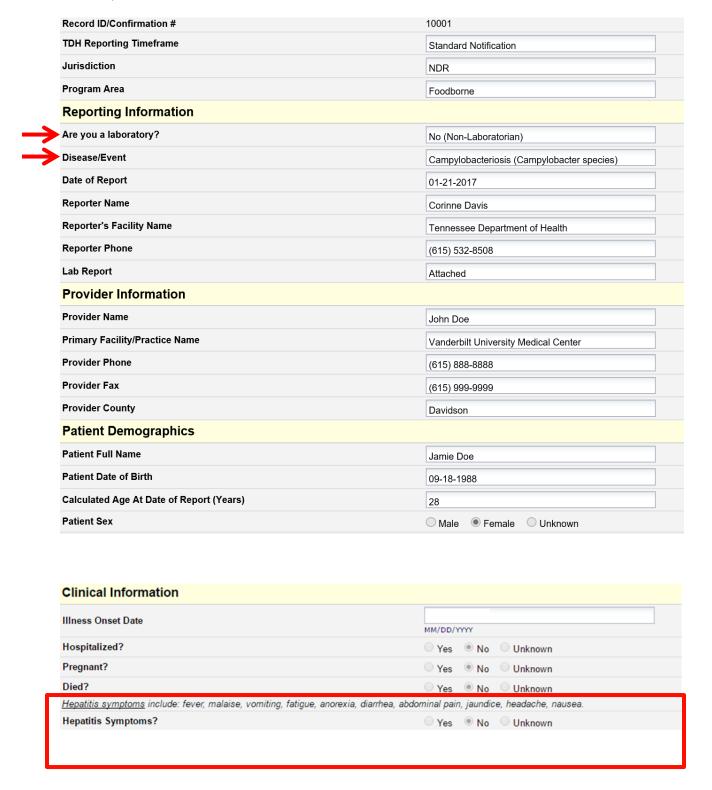
9. Click on Return to Rejected Notifications Queue to review additional investigations. The investigation you just reviewed will be removed from this queue and moved to the Approval Queue for the Central Office.





Appendix E: PH-1600 Reporting in REDCap Procedure

The person reporting the PH-1600 form via REDCap can first indicate if they are a provider or a laboratory. Additionally, they can indicate which condition they are reporting (acute HBV, chronic HBV, acute HCV, or chronic HCV) as well as if symptoms were present. Of note, the hepatitis symptoms box is not a required field and can be left blank.



The Surveillance Systems and Informatics Program prints any PH-1600 they receive for any of our conditions and give them to Central Office staff for data entry (HCV) or send it directly to the region (HBV), as with any paper laboratory report received.

For those received at Central Office, the protocol will be as follows for any HCV PH-1600 received via REDCap:

- o If symptoms are checked 'yes', we will look the patient up in NBS to determine if they have already had an acute investigation.
  - If there is an existing NBS record indicating an already regionally addressed acute field investigation, we will enter the laboratory reports and update the case status or create the chronic HCV investigation, if necessary.
  - If there is not an existing NBS record, we will email the region the REDCap Number for the region to field investigate.
- If symptoms are checked 'no', 'unknown', or left blank, we will review the attached REDCap records (if applicable) and if suggestive of acute, we will email the REDCap Number to the region to field investigate.
  - If not suggestive of acute, we will treat as chronic HCV and enter the laboratory reports and create the investigation centrally.